MAGNETICAL, METEOROLOGICAL, AND SEISMOGRAPHIC OBSERVATIONS

MADE AT THE

GOVERNMENT OBSERVATORIES, BOMBAY AND ALIBAG, 1916 to 1920

WITH AN APPENDIX

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IN THE YEARS

1916 to 1920

UNDER THE DIRECTION OF

N. A. F. MOOS, D.Sc., F.R.S.E.
C. W. B. NORMAND, D.Sc.
M. V. UNAKAR, B.A.
AND
T. K. CHINMAYANANDAM, M.A.

REDUCED AND TABULATED UNDER THE DIRECTION OF

S. K. BANERJI, D.Sc.

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Bombay Magnetic, Meteorological and Seismographic Observations, 1916 to 1920.

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Page		Table						
Page	7	Table	VI*b*	June 18*h* to 19*h*	*for*	+0·5	*read*	−0·5
,,	,,	,,	,,	November 9*h* to 10*h*	,,	+0·4	,,	−0·4
,,	8	,,	VI*c*	January 13th	,,	1·5E	,,	2·5E
,,	,,	,,	,,	March 8th	,,	3·6S	,,	0·6S
,,	11	,,	VI*g*	October 9*h* to 10*h*	,,	−1·6	,,	−0·6
,,	18	,,	II*d*	February 17*th*	,,	71·7	,,	71·9
,,	,,	,,	,,	,, 18*th*	,,	70·5	,,	70·7
,,	,,	,,	,,	,, 19*th*	,,	73·9	,,	73·1
,,	,,	,,	,,	,, 20*th*	,,	71·7	,,	71·5
,,	,,	,,	,,	,, 21*st*	,,	70·1	,,	70·7
,,	20	,,	IV*a*	April, Annual variation	,,	−·065	,,	+·065
,,	,,	,,	,,	September, Monthly mean	,,	0·152	,,	0·125
,,	48	,,	III*a*	Annual mean	,,	0·79	,,	0·791
,,	67	,,	VI*d*	year, 2*h* to 3*h*	,,	03·S	,,	0·3S
,,	,,	,,	,,	,, 3*h* to 4*h*	,,	03·S	,,	0·3S
,,	,,	,,	,,	,, 4 to 5*h*	,,	03·S	,,	0·3S

MAGNETIC TABLES.

Page		Table								
Page	21	Table	I*b*	May 28*th*, 1st line	Column	17	*for*	·36898	*read*	·36890
,,	24	,,	II*b*	February 8*th*	,,	11	,,	0° 35′ 55″	,,	0°33′ 55″
,,	25	,,	III*a*	February 2*nd* line	,,	1	,,	Feb. 2	,,	Feb. 3
,,	,,	,,	,,	March 12*th*	,,	2	,,	11*h* 37*m*	,,	11*h* 27*m*
,,	32	,,	I*a*	May 1*st*, 1st line	,,	10	,,	10° 47′ 27″	,,	10° 47′ 26″
,,	35	,,	I*b*	November 12*th*, 1st line	,,	18	,,	−·00012	,,	—·00001
,,	44	,,	I*a*	April 16*th*, 1st line	,,	15	,,	935·05	,,	936·05
,,	48	,,	I*b*	June 30*th*, 2*nd* line	,,	8	,,	*88·45	Omit	*
,,	,,	,,	,,	August 18*th*, 2*nd* line	,,	5	,,	28·9	*read*	28·8
,,	58	,,	I*a*	January 15*th*, 2*nd* line	,,	5	,,	29·	,,	29·3
,,	59	,,	,,	July 14*th*, 2*nd* line	,,	10	,,	10″ 36′ 32″	,,	10° 46′ 32″
,,	63	,,	I*b*	August 9th	,,	10	,,	6° 47′ 4″	,,	6° 47′ 24″

BOMBAY METEOROLOGICAL, MAGNETICAL AND SEISMOGRAPHIC OBSERVATIONS, 1916 TO 1920.

INTRODUCTION.

The present volume—the forty-second of its kind—extends the record of the Meteorological Observations at the Government Observatory, Bombay, to a period of seventy-five years, of Seismographic Observations to a period of twenty-two years, and of the Magnetic Observations at the Alibag Observatory to a period of seventeen years. The Alibag record overlaps the Bombay Magnetic Record for a period of two years and the continuity of the latter record which had run uninterruptedly at Colába for sixty years from 1846 to April 1906 is thus preserved and extended to a period of seventy-five years.

This volume is issued in the same form as the volume for 1911—15 with some minor alterations; but from 1921 onwards an annual volume will be published in a modified form containing bi-hourly values of all important magnetical and meteorological elements and seismic data and also a brief discussion of the essential features observed during the year. It was originally intended that the annual volumes should give hourly values of all the important elements thus bringing the publications of this observatory in conformity with those of other similar institutions but this could not be arranged without materially increasing the cost of printing.

2. *Local Situation of the Colába Observatory.*—The Observatory is situated almost at the extreme south end of the narrow ridge of land extending about three miles to the south-west from the Fort of Bombay and separating the Harbour from Back Bay. The mean level of the Observatory compound is about 32 feet above the mean level of the sea.

The co-ordinates giving the geographical position of the Observatory are—

Astronomical	Latitude 18° 53′ 36″ North.	Geodetic	Latitude 18° 53′ 47″ North.
	Longitude 72° 48′ 56″ East.		Longitude 72° 48′ 47″ East.

The buildings concerned with the production of the observations recorded herein are (1) the Astronomical Observatory and the Anemometer Tower, with a western wing, the greater part of which serves as a computing room, whilst the remainder is partitioned off for a photographic operating room; (2) the Magnetical Observatory with the adjoining Electrometer Tower; (3) the under-ground room for the photographically registering instruments; (4) the Thermograph Shed, enclosing the thermograph room; (5) the old Thermometer Shed; and (6) the three Seismograph Buildings.

3. *Alibág Magnetic Observatory.*—Early in 1900, when the City of Bombay finally decided to employ electricity as motive power for its street tram service, it became necessary to remove the magnetic work from Colaba to a place free from artificial interruptions and a new magnetic observatory was consequently built up at Alibág some 18 miles away from Bombay. It was far away, enough to be beyond the disturbing effects of the electric lines in Bombay, but sufficiently near, presumably to have similar magnetic conditions. The geographical position of Alibág also was otherwise favourable. There was no reasonable probability, at least in the near future, of a railway service (eventually driven by electric motive power) extending southwards from the Bombay line along the coast through Alibág or passing by it near enough to affect the magnetic work and compel the removal of the Observatory again to another site in a few decades.

The site was secured in 1902, and the construction of the buildings, a description of which has been given in the Observatory Volume 1906—1910, was completed in 1903, and comparative observations commenced in April 1904. After securing an undisturbed duplicate record extending over a period of two years, the magnetic work at Colába was stopped on the 31st March 1906 fortunately before the electric tram service was completed and had commenced its operation. Disturbed records at Colába were subsequently also secured for a few days when the electric tram service commenced working in Bombay. The comparative results of absolute values of the three elements H, D and I, at the two sites show that at Alibág Horizontal Force stands lower by ·00510 C.G.S., Easterly Declination stands higher by 53′·5, and Inclination stands higher by 1°4′·7 than at Colába, which are the finally adopted differences. The variations of H. D., and V., were secured by a set of Watson's magnetographs at Alibág, and by Kew type magnetographs at Colába, and the results show, as anticipated, that the diurnal and annual variation phenomena were precisely the same at the two sites agreeing to within a γ or two in the intensity variations, and 0′·1 in the Declination variation (*vide* Appendix C, tables 1—4, Observatory Volume, 1906—1910).

Local Situation of the Alibág Magnetic Observatory.—Alibág is a small town on the mainland, lying across the Harbour about eighteen miles south-south-east of Bombay. The site of the Observatory is located on the foreshore, facing south-west, with a fair extent of sandy beach stretching before it.

The ground unlike Colába is flat and low, lying about 15 feet above the mean sea-level. The situation of the Observatory is otherwise fairly similar to that at Colába. The rocks which abound on the surrounding coasts are traps as at Colába.

The co-ordinates giving the geographical position of the Observatory are—

Astronomical	Latitude 18° 38′·4 North.	Geodetic	Latitude 18° 38′·6 North.
	Longitude 72° 52′·35 East.		Longitude 72° 52′·2 East.

The Observatory grounds, consisting of about seven acres, are self-contained, being bounded on three sides by roads and on the southwest side by the sea. The Observatory consists besides the Director's quarters, Assistants' residence and office and photographic room, of two buildings chiefly concerned with the production of the observations recorded: (1) the Magnetometer Office where absolute observations are made, and a set of eye-reading variometers is located and (2) a Magnetograph Building, in which two sets of variation instruments by Watson and Eschenhagen, have been installed. Both buildings are constructed absolutely of non-magnetic materials. All the fittings are either of copper or brass duly tested before their use in the buildings, and the building materials throughout are non-magnetic, the stone used being a pure sand-stone from Porebunder in Kathiawar.

The Magnetometer Building—a plan and section of which with pictures are given in plates 1-3 of the Observatory Volume 1906—1910—consists of a basement room and a tower with two floors. In the basement room is mounted the transit instrument for the determination of time locally. For this purpose the flat roof is so constructed as to allow of a portion of it to be opened whenever required for star observations. In the same room are mounted also, on isolated pillars a large declinometer and the two Kew type magnetographs which had been in action at Colába from 1872 to 1906. These are used here, however, as simple eye-reading variometers only (observed five times a day). In the tower room on the second floor are mounted the Observatory standard instruments—magnetometer No. 7 by Cooke, Schulze's inductor, and dip circle. On the first floor auxiliary observations of H. and D. are taken with magnetometer No. 3 by the Cambridge Scientific Instrument Company and of I by another inductor by Otto Toepfer. On the ground floor magnetometer No. 137 by Dover Charlton is used for deflection experiments which serve as a check on the deflection experiments on the magnetographs for standardising the curves. The reference mark used for azimuth observations is the Kennery Light-house situated some five miles and a half away from Alibág, which is also visible from Colába and has served the same purpose there for the last fifty years. This mark the azimuth of which is 137° 53′ 25″ W. of S. can be seen from any of the three tower rooms through specially constructed slit windows suitably provided in the corners of the tower rooms as the building is oriented N.-S. and E.-W. The azimuth of Kennery from Colába is 179°49′ 30″ E. of N.

The recording variation instruments are mounted in an *overground* magnetograph building, the elevation plan and section of which are shown in plates 4 and 5 of the Observatory Volume, 1906—1910. The inner room is 25 × 30 feet. It is surrounded by walls 3 feet thick of Porebunder stone. Access to the room is obtained by a single entrance centrally placed in the west wall. This is reached by a narrow passage all round the room, entrance to which from the lobby outside is gained from the east side. The passage is formed by the walls of the inner room and a wooden saw-dust compartment three feet thick. An air space 3 feet wide is left all round the wooden compartment, and the whole is then surrounded by the outer wall of the building, 3 feet thick of Porebunder stone. The saw-dust compartment, it will be seen from the section given, is so designed that it completely surrounds the inner magnetograph chamber, passing over the top of this room below the flag stones of the flat roof above, and underneath the flag stones of the floor of the chamber. Suitably designed ventilators are provided both for the ingress and egress of the air at suitable levels. The thermograph curves given in plate 6 of the Observatory Volume 1906—1910 show that the design has proved successful in keeping the temperature uniform inside the room. The daily changes are practically *nil*, while the seasonal range is from 6° F. to 8° F. The temperature curve in the Alibág magnetograph room which is an *overground* building, it will appear from the charts, compares most favourably with that of the Colába magnetograph room which is an *underground* building. Isolated pillars are provided in the magnetograph room for the various instruments, which come up through the wooden compartment and flag stones of the floor. As already remarked elsewhere the room contains the Watson's recording magnetographs for H., D. and V., and Eschenhagen's variometers for H. and V. The latter are used as eye-reading instruments only and serve as a control over the Watson's records, simultaneous eye-readings of both sets of instruments being secured at typical hours five times a day.

4. *Directorship of the Observatories.*—The observations of the years 1916 to May 1919 both at Colába and at Alibág were taken under the direction of Dr. N. A. F. Moos, D.Sc., F.R.S.E., who retired from service on the 1st June 1919. Dr. Moos made over the charge of the Observatories to Dr. C. W. B. Normand, Meteorologist, who held the post up to 30th June 1919. After that date the Observatories

were in charge of Mr. M. V. Unakar, the First Assistant at Colába, who officiated in the post till Mr. T. K. Chinmayanandam, who was appointed permanent Director, took over the charge of the Observatories on the 9th January 1920.

The calculations of the data published in this volume have been mostly carried out under the direction of Dr. S. K. Banerji, Meteorologist, who assumed charge of the Observatories on the 11th April 1922.

5. *Personal Establishment and Arrangements*, 1916—1920.—In the Magnetical, Meteorological and Seismographic Departments there are one First Assistant and eight observers and computers, and in the Astronomical Department there are one First Assistant and three observers. These several offices were filled at the end of the year 1920 in the manner exhibited in the following statement :—

Magnetical, Meteorological and Seismographic Departments, Colába.

		Initials.
First Assistant	Mukundrai Virshanker Unakar	Muk.
Second ,, ...	Mahadeo Dinkar Karmarkar	M. D. K.
Third ,, ...	Sridhar Vinayak Karmarkar	S.
Fourth ,, ...	Luxman Vishvanath Joshi	L. V. J.
Fifth ,, ...	Madhusoodan Virshanker Unakar	M. V. U.
Sixth ,, ...	Gajanan Sadashiv Sane	G. S. S.
Seventh ,, ...	Ganesh Sitaram Savant	G. S. Sa.

Magnetical Department, Alibág.

First Assistant	Vishnu Balkrishna Achwal	A.
Second ,, ...	Ganpat Pandurang Mayekar	G. P. M.

Astronomical Department, Colába.

First Assistant	Padmakar Vaman Sirdespandye	P. V. S.
First Assistant (Time Ball Service).	Gopal Pandurang Sabnis	G. P. S.
Second ,, ,, ..	Krishnaji Bhalchandra Fagre	K. B.
Third ,, ,, ..	Mahadeo Ganesh Joshi	M. G. J.

Mr. Ganesh Sadashiv Joshi, First Assistant at Alibág, retired from service on pension from the 24th December 1917. Mr. Waman Vinayak Nene, Astronomical Assistant, resigned his appointment in this office from the 15th June 1920.

The initials against the names of the Assistants are those which the respective officers attach to the several observations and operations performed by them.

6. *System of Observation and Reduction, and Distribution of Work.*—The Astronomical Observatory is furnished with a transit instrument and three sidereal clocks which are used for the determination of the local time primarily for the Time Ball service for communicating time to the shipping in the Bombay Harbour and for rating the large number of chronometers in stock for the ships of the Royal Navy and the Royal Indian Marine, and secondarily for the communication of time by the comparison of clocks three times a day, to the different departments of the Observatory.

The First Assistants are charged with the determination of values of instrumental constants and the more important observations requiring skill and long experience, and they generally control the whole of the work of their respective departments.

Upon the Third Assistant devolve mostly the photographic operations. He is also responsible for all the photographic instruments which require constant and vigilant attention. The anemographs and the meteorological and seismographic work generally are attended to by the Fourth Assistant. The routine magnetical, meteorological and seismographic observations are in general made by the rest of the observers, and computers, who are made to take up the work by rotation. Amongst the duties of the assistants are included the tabulation of all photograms and seismograms, the calculation and reduction of all meteorological and magnetical elements, the preparation of various meteorological and other returns, the calculation of daily averages and the writing out of the monthly abstracts. The latter consist of tables having the days of the month marked in numerical order in the first column and the hours of the day in order at the head of the columns, and there is one such table for each magnetical or meteorological element observed. All observers attend the computing office when not actually engaged on observation duty. The Second Assistant is entrusted with the absolute magnetic observations which at Colába now are restricted to declination observations only made once about the middle of the month. At Alibág the First Assistant in charge of the Observatory is entrusted with the absolute magnetical observations and generally controls the whole work at the Observatory

there. Eye observations and other general routine work including the photographic work are attended to by the Second Assistant. Although every man is delegated with duties which he is most competent to perform, precautions are taken to keep some of the observers fully instructed in the different operations, to provide for occasional absence of any member of the establishment. All computing operations are systematically performed by one computer and checked independently by a repetition of the operation by another. Residential quarters are provided on the observatory premises for all members of the establishment. On Sundays and general holidays all assistants at Colába are set free except three, one being kept on observing duty, one in charge of the self-recording instruments and one in charge of Astronomical duties. At Alibág, also, eye observations are taken and the photographic duties performed by the two assistants on Sundays and general holidays in rotation.

System of Observation at Colaba.

(*a*) *Daily Routine Operations.*

Meteorological and seismographic observations are taken every day, including Sundays, at the hours 6, 10, 14, 16 and 22 : the day commencing at midnight, Bombay (Colába), is reckoned from 0 to 24. The time of observation of each element is fixed and the observations are registered with strict punctuality as follows :—

From 5 minutes to the hour to 2 ,, after the hour	Extent and description of clouds, state of the weather, occasional phenomena, and direction of the wind.
At 2 ,, ,, ,,	Thermograph standard thermometer, dry bulb.
	Do. do. do. wet bulb.
,, 3 ,, ,, ,,	Newman's rain gauge (in wet season).
From 5 ,, ,, ,, to 7 ,, ,, ,,	Thermometer in ground 1 inch deep.
	Do. do. do. 9 inches deep.
From 7 ,, ,, ,, to 9 ,, ,, ,,	Newman's standard barometer No. 58 and attached thermometer.
	Do. do. do. No. 48 and do.
At 10 ,, ,, ,,	Thermometer attached to barograph.
From 15 ,, ,, ,, to 18 ,, ,, ,,	Thermometers in the Milne's seismograph room and Milne's seismograph Zero reading (discontinued from 4th December 1918).
At 19 ,, ,, ,,	Surface thermometers in the sun 1 and 8 inches deep.

The maximum and minimum thermometers in the thermometer shed, as also the solar radiation thermometer, are read twice daily at 8 and 16 hours.

Observations made once daily include readings of (1) the ground thermometers 20, 60 and 132 inches deep, taken at 14 hours, and (2) the nocturnal radiation thermometer taken at 8 hours. During the monsoon months Newman's rain gauge is read daily at midnight and the discharges of the syphon of the self-registering pluviograph, are also read once or oftener as required. The electric clock controlling the Ball drop and the Harbour clock, is duly regulated by comparison thrice daily with the standard sidereal clock. Government chronometers, belonging to the Royal Indian Marine and Royal Navy Stores at the Observatory and those received from merchant ships in the harbour are wound daily or twice a week as required, and comparisons with the standard clock are made with sufficient frequency to render the instruments always ready for issue at call with well-determined rates.

(*b*) *Weekly Routine Observations.*

Transit observations of stars for the determination of time for securing the errors and the rates of the sidereal clocks are made every Monday, Wednesday and Friday in the dry months of the year. During the monsoon months no opportunity is lost for observing either the sun or the stars whenever visible. The adjustment of the Transit instrument in azimuth is tested frequently by reference to the fixed meridian collimator marks, and level errors are tested and checked once every month. Errors of collimation, level, and azimuth are determined twice a year in May and December or whenever the collimator shows a displacement of the telescope or any considerable discordance appears in the clock errors derived from observations of stars of different north polar distances.

Observations of magnetic Declination are made once about the 15th of every month at Colába for the determination of the local value of declination which is required for the examination and comparison of compasses of ships in the Harbour.

System of Observation at Alibag.

(a) *Daily Routine Operations.*

Eye observations of the instruments specified below are taken daily, Sundays included, at 6, 10, 14, 16 and 22 hours at the specified instants of time about the full hour of Greenwich mean time :—

At 19 minutes to the hour :	.. Kew Horizontal Force Magnetometer and attached thermometer.
„ 17 „ „ „ „ :	.. Kew Vertical Force Magnetometer and attached thermometer.
„ 15 „ „ „ „ :	.. Declination Magnetometer and thermometer in the Magnetometer room.
„ 11 „ „ „ „ :	.. Eschenhagen's Vertical Force Variometer and attached thermometers.
„ 10 „ „ „ „ :	.. Watson's Vertical Force Magnetograph and attached thermometer.
„ 9 „ „ „ „ :	.. Watson's Declination Magnetograph.
„ 8 „ „ „ „ :	.. Watson's Horizontal Force Magnetograph and attached thermometer.
„ 7 „ „ „ „ :	.. Eschenhagen's Horizontal Force Variometer and attached thermometer.
„ 6 „ „ „ „ :	.. Thermograph in the Magnetograph room and standard thermometer (read twice daily at 6 and 16 hours only).

(b) *Periodic Routine Operations.*

Deflection experiments, with vibration magnet of magnetometer No. 3 (of magnetometer No. 137* from June 1918), the moment of which is determined every week, as deflector at 100 cms. distance on the horizontal force magnetograph and 75 cms. distance on the vertical force magnetograph, are made once every fortnight. Similar deflection experiments with vibration magnet of magnetometer No. 137* (of magnetometer No. 3 from June 1918) as deflector are made once a month for the purposes of check work and corresponding deflection experiments at the same distances are also made every month by the same deflector upon a magnet appropriately suspended over the pillar on the ground floor of the tower.

Deflection experiments, with vibration magnet of No. 3 (No. 137* from June 1918) as deflector at 100 cms. distance on the horizontal force variometer and 75 cms. distance on the vertical force variometer are made once a fortnight.

Observations of vibration and deflection for the determination of absolute horizontal force are made with the Observatory standard instrument No. 7 on Wednesdays and with the auxiliary instrument No. 3 * on Mondays. With the same instruments observations of absolute declination are taken every Thursday. Observations of inclination were made with the Schulze's Inductor, which is the Observatory standard instrument, and another inductor by Otto Toepfer every day in the year with the exception of Sundays and holidays but each of the two inductor instruments was observed on alternate days, both the instruments being observed simultaneously for check work on Saturdays (Fridays from January 1918).

Transit observations of stars for the determination of time are made generally on Mondays and Fridays in the dry months ; during the monsoon no opportunity is lost of observing the sun or stars whenever visible. The adjustments of the transit instruments are frequently tested by reference to the fixed collimator marks and by level observations ; the residual errors of collimation, level and azimuth are determined periodically twice a year, or whenever the collimator shows a displacement of the telescope or any considerable discordances appear in the clock errors derived from observations of stars of different north polar distances.

7. General description of the magnetical meteorological and seismographic instruments, their adjustments and the process of reduction.

The following details show the special circumstances in connection with the condition, situation and adjustments of the various instruments, as also the habits of the observers and the routine

* Magnets belonging to magnetometer No. 137 were interchanged with those of magnetometer No. 3 from 20th May 1918.

processes of reduction, to enable the reader to form his own independent judgment as to the degree of precision attained in the results and the weight to be attached to any deduction or conclusion that may be drawn from the observations.

(*a*) Meteorological Instruments at Colaba, 1916 to 1920.

Standard Barometer.—The barometer fixed on the eastern wall of the magnetical observatory a few feet from the north-east corner of the room is by Newman, No. 58, and is the same which has been in uninterrupted use since the establishment of the observatory. Its tube is 0·530 inch in diameter. The cistern, which is of glass, is 37 feet above the mean sea-level at Colába. The brass scale is moveable and terminates at the lower end in a point of ivory which is designed to be set at every observation so as just to meet its reflected image as seen in the mercury. The scale is primarily divided to 0·05 inch and by means of a vernier, 0·002 inch can be read off. To the moving vernier are attached two small brass plates one in front and one behind the tube. The setting of the instrument consists in raising or lowering the vernier until the lower edges of the brass plates appear just to cut tangentially the convex surface of the mercury in the barometer tube, the line of sight being so regulated in height as to coincide with the two edges. A thermometer with a cylindrical bulb, attached to the barometer, dips into the cistern and the readings of temperature derived from this were in use up to 1884. In an investigation described in the "Bombay Magnetical and Meteorological observations, 1871 to 1878," it was discovered, however, that the readings of the thermometer, which was supposed to record the temperature of the mercurial column of the barometer, were considerably in error, and the use of the thermometer hence was discontinued from the beginning of 1885 and a thermometer by Murray and Heath, No. 2, divided to half degrees, with its bulb immersed in a column of mercury held in a short glass tube of nearly the same diameter as that of the barometer tube, was fixed to one side of the barometer. The readings of this thermometer have been used since 1885. The error of this attached thermometer varies by about a quarter of a degree within the annual range of the temperature of the barometer, and in adopting a mean error throughout, small pressure corrections of $\pm$ ·0003 have been disregarded.

The barometer was lifted down in 1866 and the mercury carefully run up to the top of the tube when it gave the sharp metallic click indicative of a good vacuum. It was replaced carefully in its position, the tube, etc., being kept in proper adjustment to verticality. The barometer is of that particular class, a description of which occurs at page 56 of the "Report of the Committee of Physics of the Royal Society, 1840," and therefore the scale of the barometer is laid off from the zero point from an authentic standard.

Since 1841 when it was first mounted, there has been a gradual accumulation of scum on the surface of the mercury in the cistern, and the glass cistern became more and more opaque until the setting operation of the ivory zero point of the scale became a matter of difficulty and some uncertainty. For this reason the usual method, as referred to above, was changed on the 22nd May 1866. On that day the zero of the scale was set *once for all* and the setting screw was removed, and suitable corrections for capacity were thenceforward applied to the readings. These were taken from a table derived from the following formula :—

$$\text{Capacity correction} = \cdot 04321\ (h_o - 29\cdot 943)$$

'h_o represents the uncorrected reading'

data for the construction of which will be found in the "Bombay Magnetical and Meteorological Observations, 1865 to 1870", Introduction, pp. x, xi.

As at Bombay the fluctuation of the barometer reading from its mean value very rarely reaches ·4 inch, requiring a correction of ·017 inch, it seems very improbable that an error of so much even as ·001 inch occurs from any inaccuracy in the adopted values of the relative capacities of the tube and the cistern. Since the change was effected, the comparability of the observations for showing the finer variations has on this account throughout been much better secured.

The depression of mercury due to capillary action in a tube of 0·53 inch diameter being small no correction is applied on this account.

On 30th July 1875 it was discovered that the vernier scale of the barometer was short by ·002 inch. To correct the errors arising from this fault instructions were issued to note the positions of coincidences at ·000 and ·050 of the vernier scale with the scale of the barometer and also the non-coincidences at the above scales when the barometer reading was in exact half-tenths of an inch. It became then an easy matter to construct a table of corrections and to apply them for all positions of the vernier. These corrections have throughout been applied since.

The barometer is read daily including Sundays at 7^m after the full hours of observation—6, 10, 14, 16 and 22. Each reading is corrected by the application of the temperature correction reducing

the temperature of the mercury column to 32° F. and that of the brass scale to 62° F. Another correction is applied to remove the error of discontinuity due to the change of thermometer. The first correction is made by means of Table II of the Report of the Committee of Physics of the Royal Society, the second by a constant reduction of the corrected pressure by ·002 inch. The considerations on which the latter correction is based, are as follow :—(1) the tabulations of the barograph are known to exhibit correctly the diurnal variations of barometric pressure, free from any sensible influence of variations of the temperature of that instrument ; (2) the mean of twenty-four hourly barograph tabulations on any day is taken to correspond to the mean of the same twenty-four hourly pressures observed with Newman's barometer, No. 58, and corrected for the temperatures indicated by the old attached thermometer ; (3) it does not follow that the mean of the tabulations for the five observation hours (6, 10, 14, 16 and 22) will then correspond exactly to the mean of the observed pressures for the same hours, because the old thermometer does not indicate precisely the actual variations of temperature of the mercurial column : in fact the latter mean pressure was, on the average of all the observation days of the year 1872, ·0008 inch in excess of the former mean pressure ; (4) nevertheless the correspondence for the five observation hours was adopted as near enough to identity with the correspondence for the twenty-four hours, and the recorded mean pressures of the years 1873 to 1884 will thus be ·0008 inch in excess of those of the years before 1873 ; (5) the old attached thermometer and the thermometer No. 2 by Murray and Heath were read of together at the five observation hours throughout the year 1883, and the average excess of the former reading over the latter was found to be 0°·62 ; (6) hence to make the pressures reduced for the readings of Murray and Heath, No. 2, correspond to those reduced for the readings of the old thermometer the former pressures must be decreased by ·0027 × 0·62 = ·0017, or—as the pressures are read and calculated only to thousandths of an inch—by ·002 inch. Thus taking the period before 1873 as a standard period, the recorded annual mean pressures of the years 1873 to 1884 will be ·0008 inch too high, and those of 1885 and later years, ·0005 inch [= —·0020 + ·0017 + ·0008] too high.

Indirect comparisons of the barometer have been made with the Kew standard by means of two mountain barometers by Negretti and Zambra, numbered 705 and 711, when they were both found (in July 1876) to read ·011 inch higher than the Observatory standard. In England, however, they had been found to read ·007 and ·006 respectively higher than the Kew standard. Hence the Observatory barometer reads on an average ·004 below the Kew standard. It happens that this is exactly the average amount by which the readings of Newman's barometer have been over reduced for temperature (*vide* Introduction to the Bombay Magnetical and Meteorological Observations, 1871 to 1878, paragraph 72).

Barograph.—The photographic barometer stands separate on two pillars in the magnetograph room. It was supplied through the Kew Committee of the British Association after being tested at the Kew Observatory, and is similar in construction to those adopted by the Meteorological Committee of the Royal Society for the seven observatories established by them in the United Kingdom in the year 1867. The barograph has been treated as an independent instrument in respect of the variation of pressure occurring in the course of a day, but only as an auxiliary to Newman's standard barometer, No. 58, in respect of the mean daily pressures. The excess of the mean of the five observations of the standard barometer made daily, over the mean of the corresponding five barograph tabulations has been used as a correction to the mean of the twenty-four hourly tabulations for the same day, a new correction being calculated for each day. A detailed account of the instrument and its particulars and adjustment is given in the "Bombay Magnetical and Meteorological Observations, 1871 to 1878, pages xvi to xlvi".

Thermometers—Standard Dry Bulb.—The thermometer is by Casella and marked No. 401 : it is a mercurial thermometer, with a cylindrical bulb 3·7 inches long and about 0·37 inch in diameter. The stem is graduated and divided into degrees : the range is from 0° to 120°, measuring 12·36 inches ; and the bulb is freely exposed to the air. It is placed in the cage of the thermograph shed about 5 inches from the thermometer which records photographically and is similarly exposed.

Standard Wet Bulb.—This is also a mercurial thermometer by Casella No. 402, and has a cylindrical bulb 3·7 inches long and 0·37 inch in diameter. The thermometer is graduated on its stem and is divided into degrees with a range from — 10° to + 120°, measuring 13·03 inches. The bulb is covered with muslin, and is kept moist by the capillary action of a bundle of fine cotton threads immersed in a small vessel of water near the thermometer bulb and passing loosely round the thermometer stem just over the bulb. The same vessel of water supplies the evaporating fluid to the photographic wet bulb placed about 3 inches distant.

The errors of the above standard thermometers have been carefully found and corrections duly applied. The errors were determined by a Kew standard (No. 368) thermometer in February and March 1875, at fourteen points ranging between 32° and 102°, and the readings were found to be within 0°·1 of the truth. On 20th December 1877 the errors of the freezing points were also tested,

showing no noticeable change (*vide* paragraph 53, Table 10 of the Introduction to the Bombay Magnetical and Meteorological Observations, 1871 to 1878). On the 26th November 1917, the freezing points were again tested and the zero of the dry bulb standard thermometer No. 401 was found to have changed from 32°·6 to 33°·0 F and that of the wet bulb standard thermometer No. 402 from 32°·5 to 33°·0 F. A rise of 0·4 and 0·5 degree was respectively noted thus in the zero points of these thermometers during the period.

Photographic Dry Bulb and Wet Bulb.—The height of the bulbs of the thermometers of the thermograph above the ground is 10 feet. The cage is placed on one of the most exposed parts of the Observatory grounds and away from any building; it is, however, screened, as is also the thermograph room in which the recording apparatus is placed, by a roomy shed with a planked roof which is everywhere 2 feet above the roofs of the cage and room: the sides of the shed are of the louvre construction, with double sheets of zinc enclosing a thick layer of felt substituted for the wooden laths, and with a vertical distance from lath to lath of one foot: the lowermost two feet of the sides are guarded simply by horizontal iron rods: the roof of the shed is covered with thick felt and then with strong canvas, and the whole of the exterior—sides and roof—is painted or limewashed white.

Ground Thermometers.—Thermometers with their bulbs at the respective depths below the surface of the ground of 1, 9, 20, 60 and 132 inches are regularly observed, the two former five times a day and the three latter once a day at 14 hours. They are all by Newman, of London, and are divided on brass scales, and the value of one division, approximate range of part of scale exposed above ground, and lengths of that part and of one average degree are shown below for each thermometer :—

Depth of Bulb.	Divided to	Approximate Range of exposed part of Scale.	Length of that Range.	Average length of 1°.
Inch.			Inches.	Inch.
1	1°	30° to 145°	8·19	·071
9	0°·2	70° to 115°	5·20	·116
20	1°	35° to 160°	6·73	·054
60	1°	35° to 160°	6·81	·054
132	1°	50° to 140°	6·44	·072

The 1-inch and 9-inch thermometers are on flat brass scale frames, which lie against wooden posts in the ground, and they have their bulbs in contact with the loose red earth which fills the holes in which they are placed; the 20-inch, 60-inch, and 132-inch thermometers have their lower parts enclosed in brass tubes with ends curving off to a point, and the upper parts are in wooden box frames to which the brass scales are fixed. The reason why only one observation is made daily of the three deeper thermometers is that it had been found by hourly observations in 1849, 1850 and 1851 that no appreciable diurnal variation of temperature reached the depth of 20 inches.

The 9-inch thermometer was found broken in October 1912. Another thermometer had to be ordered out from England and this thermometer No. 203096 by C. F. Cassella was brought into use from March 1914. Its upper stem which includes the range of degrees to which the variations of temperature are subject is fixed to a wooden frame while the lower stem and the bulb are enclosed in a perforated brass case, which is sunk in the ground, the bulb being kept at the depth of 9 inches.

The errors of graduations of the ground thermometers are unknown.

Robinson-Beckley Anemograph.—From the establishment of the Observatory till December 1865 a rough pressure anemometer was in use. This was replaced by a small anemometer by Robinson which remained in use up to June 1867. From the beginning of the month of June 1867 was brought into use an anemograph of the kind designed by Robinson, with improvements by Robert Beckley, and it remained in action till October 1907 when it was replaced by a new instrument of the same pattern and by the same makers. It was made by Mr. R. W. Munro, and was supplied through the Kew Committee of the British Association, after being tested at the Kew Observatory. In this instrument the arrangements for the registration both of movement and direction of the wind are mounted on one shaft, and the registrations are made on a single sheet of paper, which is changed daily. The essential part of the apparatus for measuring the movements is a vertical spindle, to which cross arms are attached at the top, carrying four hemispherical cups of copper. The cups are attached to their several arms, so that, looking from the central axis, their convex sides are seen on the right hand, and the wind, acting with greater effect upon the concave than on the convex sides of the cups, causes the system to rotate in a right-handed direction. It is the number of these rotations, 140 of which are reckoned to a mile of movement of the wind, that tells us how fast the wind has been blowing; and the number is reduced, by means of wheelwork, 7,000 times before reaching a small

cylinder carrying a continuous brass spiral projecting edge which serves as a pencil to trace the movement of one complete revolution on the registering paper. The paper is metallic of the kind used for pocket-books, and is wrapped round a brass cylinder, which is kept rotating by clockwork, and as the paper passes under the spiral pencil which presses slightly upon it, a black trace of the movement is received upon it. The wind vane, which consists of a pair of windmill vanes with connecting spindle having an endless screw in the middle and gearing into a fixed horizontal toothed wheel, is attached to a tube that surrounds the lower part of the vertical movement spindle ; to the bottom of the tube is fixed a toothed wheel, which, in communication with other such wheels, conveys the motion of the vane *unchanged* to a small cylinder with a spiral pencil, which traces the changes of direction on the register. The whole arrangement is so devised as to have both the velocity and direction traced on parrallel strips or bands on one and the same sheet of paper which is changed daily at 10 A.M. The heavy parts of the instrument—the direction vane and appendages, and two long brass tubes which connect the instrument proper with the recording apparatus—are supported on friction balls (friction rollers in the case of the new instrument) which run in grooves partially filled with oil, thus reducing the friction to a minimum. The instrument* is erected on the old Time Ball Tower, at a height of 53 feet above the ground, and 95 feet above the mean sea level, over a platform 12 feet in diameter, which is designed to give ready access to the instrument, and to protect it from irregular currents of wind, glancing from the convex surface of the dome. It is supported outside by a fixed cast-iron standard, to which is attached, at the top, the toothed wheel into which the endless screw of the spindle connecting the wind mill vanes gears. The centres of each pair of opposite hemispherical cups are four feet apart, and five and a half feet above the platform and the diameter of the cups is nine inches. The diameter of the vanes is 15 inches, and the breadth of the fans 4 inches. The register form is printed in red, with lines dividing its length into hour spaces ; and its breadth, on the movement side, into five spaces, each representing 10 miles of movement of the wind, and numbered from 0 to 50 miles ; and on the direction side, into eight spaces only corresponding to intervals of 45°.

Tabulation of Anemograms.—Numerical tabulations have been made of the movement and direction of the wind during the interval between every two successive hours in the following manner :—The number of miles indicated at the point where the velocity trace cuts a horizontal hour-line being read for two successive hours, the excess of the latter over the former reading (adding 50 if the trace has passed over from left to right of the form) gives the movement for the interval. The estimations of movement are made only to the nearest full mile and of direction to one of the sixteen principal directions corresponding to an interval of 22½ degrees. If the direction trace does not lie all in one space during the full interval of an hour, and if the change of direction exceeds 90° or eight points, the whole observation for that hourly interval is rejected ; but if it lie within that limit, the direction is estimated—by an inspection of the movement and direction traces together—whence the aggregate flow of air was the greatest and this direction is adopted for the full hour.

Method of reduction.—We are now dealing with a vector quantity varying both in magnitude and direction and the quantity has therefore to be studied by resolving it into two fixed directions, north and east. The resolutions are effected by means of the formulæ—

$$\text{North component of velocity of wind} = m \cos (n \times 22\tfrac{1}{2}^\circ),$$
$$\text{East component of velocity of wind} = m \sin (n \times 22\tfrac{1}{2}^\circ),$$

where m is the movement observed, and n the number of the direction space under which the wind of the hourly interval is classed. When the sign of either of these calculated quantities is negative, it implies that the wind blows from the opposite direction, *i.e.*, from south or west. The calculations are readily made by means of tables to the nearest tenth of a mile of velocity per hour. Having now substituted the two equivalent winds for the real one, we may with propriety proceed to combine together numbers of observations by algebraical addition and averaging, treating the north and east components of the wind each by themselves. The averages thus found from the observations of any given period will represent the velocity with which the wind must blow from the northward (from the southward if the sign of the average be negative) continuously for the whole period, in order that the total movement of the wind from that direction may be the same as the total movement from the same direction produced by the winds which actually blow, and similarly the velocity with which it must blow continuously from the eastward (westward if the sign of the average be negative).

No corrections have been applied to the anemograph tabulations on account of friction.

The correct formula for deriving velocity in miles per hour from wind pressure in lbs. per square foot is $P = \cdot 003V^2$, and in the computations involved, the actual velocity of the wind as derived from the run of the cups, is obtained by the use of factor 3 originally suggested by Robinson. All wind figures therefore published up to the year 1910, have been derived by this factor. As a result however of a prolonged inquiry this factor has been found to be much too large and its correct value has been

* A detailed account of the old Colaba anemograph will be found in the " Bombay Magnetical and Meteorological Observations, 1865 to 1870, Appendix I, page 199.

eventually fixed at 2·2. All velocities, from the year 1911, have been derived from the new factor, and the whole data of previous years up to 1910 which have thus been overestimated will have to be reduced by ·73 in order to secure true velocities comparable with these and future wind data.

In October 1907 the old anemograph which had been in action at the observatory from the year 1867, was replaced by a new one by R. W. Munro & Co. The comparison of the record of this old instrument with that of Dines' from 1898 to 1907, showed that on the average the factor stood at 2·11. Similar comparison from 1916 to 1920 between Dines' and the new anemograph records, showed the factor to be on the average 2·09. *Vide* also paragraph below and tables in Appendix B of the Observatory Volume, 1906 to 1910.

Dines' Anemometer.—This instrument by R. W. Munro of London was received in January 1897 and fitted up in February on the same tower on which the Robinson-Beckley Anemograph is fixed, and it has been in action since then. The fixture is so arranged that the one instrument does not in any way interfere with the action of the other. The anemograph is fixed centrally on a flat platform on the top of the old Time Ball Tower and the pressure tube anemometer is located on the edge of this platform to the north east—the distance between the two instruments being the radius of the platform—about 6 feet. The vane of the latter is placed about 6 feet above the platform, so that it is about 6 inches above the level of the cups of the anemograph. The tower is 53 feet high from the ground and 95 feet above mean sea-level and, looking at the exposed position of the tower, the two instruments have been placed in as identically analogus conditions as was possible under the circumstances. The instrument consists of two main parts, the " head " and the " recording apparatus." The " head, " which is fixed on the top platform is composed of two parts, the moveable and the fixed. The former consists of a hollow tube (1 inch in diameter) to which is attached at right angles at the top and opening into it, another similar tube open at one end but closed at the other where the vane is attached. The fixed part consists of three concentric tubes forming two annular spaces. The central tube, which stands higher than the middle tube by about ·7 inch, is supported a little below the top of the middle tube by two radial pieces and is closed at the top to form a hollow cup which serves as a support for the pivot provided centrally in the horizontal vane tube of the moveable part allowing the latter to move freely round the middle concentric tube as axis. The moveable part thus opens into the inner annular space. The outermost concentric tube, which is considerably shorter in length than the middle one, has some fine perforations bored all round the tube, the annular space between it and the middle tube being closed at the top. As the wind vane attached to the moveable tube keeps the latter always facing the wind, the action of the wind in the inner annular space is compressive as the wind blows directly into it, while in the outer annular space the air as it rushes past the small perforations produces a suction effect resulting in decrease of pressure.

The recording apparatus consists of a large cylindrical vessel almost airtight, filled with water to a certain level. In this is introduced a specially constructed hollow copper float, open from below and weighing about 66·46 ounces, which rises or falls in response to the change of pressure of the air in the cylinder above the float and of the air within the float caused by the action of the wind which is communicated from the " head " to the recording apparatus by two flexible tubings (40 feet long) led by gentle curves from the former to the latter. The tube which is attached to the suction part of the " head " transmitting decrease of pressure, enters the vessel from the top lid, while the other leading from the pressure part of the " head " transmitting increase of pressure, leads into and opens inside the float. As the action of the wind in the former space is to reduce the pressure the float becomes more buoyant and rises, while the action of the wind inside the float causes increase of pressure, and thus co-operates in raising the float. The float ends in a narrow smooth rod which, passing through an almost airtight vulcanite collar in the top lid, carries a small cup with attachment of pen, etc. On the top of the lid, a little removed from the recording pen, is fixed a small cylinder driven with clock-work, which carries the paper chart. The pen is so attached as just to fall on this paper by its own weight to avoid unnecessary friction between the two. When the float is pressed down to the bottom, the pen just touches the zero line on the chart. The float under ordinary circumstances when the communication between it and the head is cut off, rises through a certain distance, carrying the pen with it, which is again brought carefully back just to zero by the addition of small weights in the cup. The instrument is now ready for recording changes of pressure when communication is opened between it and the head. The peculiar construction of the float makes the upward force measured in units of velocity to vary uniformly with the ordinate : thus a velocity of 10 miles gives an ordinate of ·6 inch on the chart, that of 20 miles 1·2 inches, and so on.

The comparison of the instrument with a U tube pressure gauge locally improvised, showed on the result of a series of experiments, that the relation between W—the difference in level of the water in inches in the two arms of the U tube, which is a measure of the pressure of wind—and V the velocity of the wind in miles per hour as indicated in the Colaba Dines' chart, was $W = \cdot 00078V^2$ instead of $W = \cdot 00073V^2$ which should have been the correct relation if the instrument was in order and in perfect adjustment. The result hence showed that the Colaba Dines' instrument indicates

only about 96 per cent. of the true velocity. This defect of 4 per cent is appreciably large but considering that the magnitude of the probable errors of observations in the experiments, was not negligible and that ordinarily the velocity does not exceed 20 miles per hour, the graduations on the chart of the Dines' recorder may be accepted as indicating correct velocities for all practical purposes, except for high winds for which a small correction seems necessary.

Tabulation of the Anemograms.—Numerical tabulations are made in a table in which the days of the month are marked in numerical order in the first vertical column and the hours of the day at the head of the succeedings 24 columns where the hourly averages are entered. The twenty-sixth column gives the sum and the next column the mean hourly velocity for the day. At the bottom of the table columns are provided for the sums, means and variation. The hourly averages are generally determined by inspection, the hour when necessary for accuracy being subdivided into convenient divisions. The average of these divisions is taken as the mean hourly velocity, due weight being given to the time of each sub-division. In very complicated movements and doubtful cases the planimeter is used to check the results.

Four photolithographic copies of the velocity chart shown in Vol. XXXVI of 1897 at page X represent different but typical characters of the wind. The first shows the character of the wind during a thunderstorm day, the second during a somewhat gusty day, the third during a somewhat stormy day, and the fourth during a typical normal day.

Rain gauges.—Newman's rain gauge, which has been in use since 1845, is made of copper and exposes for the collection of rain-drops a circular surface of an average diameter of 12·035 inches forming the top of a funnel, which opens into a cylindrical vessel below, having a diameter of 5·732 inches: a float of slightly less diameter, so as to rise and fall freely, rests upon the water in this vessel and having a wholly convex external surface, it allows the rain as it falls to flow off and raise the level of the water and with it the float. To the middle of the float is fixed a wooden rod, graduated into divisions, each of which represents ·05 inch of rain; and the readings of this scale, which are easily estimated to fifths of a division, are made where it is cut by the upper edge of a light brass rod placed horizontally across the mouth of the funnel, but half an inch below the edge of the exposed circular surface; the scale passes through a hole in the middle of the horizontal rod, and is thus kept always in a vertical position. The range of the scale is from 0 to 3·50 inches, and the readings of the scale are entered in the meteorological register and the differences taken for every interval between successive observations; the rain is allowed to accumulate in the vessel generally till the reading is somewhere above 2·00 inches, when the water is let out, by means of a brass cock at the bottom, till the reading comes down to 0·00 inch. This latter reading is always maintained during intervals of dry weather—when, from evaporation, the scale would otherwise fall lower—by pouring small quantities of water into the gauge; the reason of this is obvious, as, if some water were not always retained, the float would sometimes rest on the bottom of the vessel and so cease to perform its function of rising equally for equal increments of rain. The scale of the wooden rod was graduated so as to agree approximately with the data—the diameters of the gauge and measuring vessel—given above. The error of the scale according to which the rod was graduated was less than a thousandth of the whole.

The old wooden scale was accidentally broken on the 2nd August 1916. An exact copy of it was prepared, duly tested and fixed to the float.

Newman's gauge stands on a large rectangular block of stone, in a position intermediate between the Entrance Gate, the Magnetical Observatory, and the Thermograph Shed, where the altitude of the highest neighbouring object, as seen from the gauge, is about 30°. It is supported by three feet, which are embedded with lead in holes cut in the stone block, and its circular mouth is at a height of 4½ feet above the ground and about 35 feet above the mean sea level.

Photographic rain gauge.—A description of this instrument will be found in the Introduction to the "Bombay Magnetical and Meteorological Observations, 1871 to 1878," page xlvi. In the years 1916 to 1920 the syphon discharges were received in glass bottles and measured by means of a graduated glass tube and a marked glass bottle holding exactly half an inch of rain.

It was mentioned in former years that the occurrence of the discharging action of the syphon was occasionally liable to some uncertainty—the water at times trickling over the bend of the tube in considerable quantities before the proper discharge commenced. After trial of many modifications in the form of the syphon one was at last hit upon, which is free from this fault, and by which the tube is, moreover, kept in a satisfactorily clean condition from beginning to end of the monsoon, simply by the washing that takes place in the ordinary automatic discharges. Since November 1884, when the new syphon was brought into use, the discharges have been regular and have failed on very rare occasions. To prevent birds alighting upon the funnel, and choking it with their droppings, a conical arrangement of pointed iron spikes surrounding the funnel was attached in 1882, and was found to be effective.

Constants for converting syphon discharges into inches of rainfall.—As the surface exposed by the rain gauge funnel is 50·286 square inches, an inch of rain contains 823·955 cubic centimeters. With the aid of a cubic centimeter measure accurate to a thousandth of 100 cubic centimeters which it was designed to measure, 412 cubic centimeters of water were poured into a narrow-necked glass bottle and a file mark was made on the neck at the level up to which the water rose. A glass tube was also graduated by means of the same cubic centimeter measure, so as to read off thousandths of an inch of rain with ease. The bottle is filled as often as there are discharges from the rain gauge syphon, and the final excess or defect is measured with the graduated tube. The use of the bottle began on 31st July 1879 and continued till the 26th July 1884, when it was accidentally broken. An exact copy of it, which had been prepared beforehand, was then substituted for the original bottle and is still in use.

Measurement and distribution of syphon discharges.—The discharges are measured daily, or oftener during heavy rainfall, and are, of course, always of an integral number. For each measurement the average value of a discharge is attributed to each of the intervals of time, shown on the rain curve, between pairs of successive discharges; and it remains then only to distribute this quantity for each filling of the receiving vessel, by means of tabulations of the ordinates of the rain curve. When, as is often the case, the rate of fall of the rain at the time of a discharge exceeds $1\frac{1}{8}$ inch per hour, it is necessary to allow for the rain that enters the receiving vessel during the known time (16 seconds) of discharge, the allowance depending on the rate of rainfall, which is easily estimated for this purpose by noting, with the aid of an appropriate paper scale, the inclination of the rain curve immediately after the time of discharge. The aggregate of such allowances is deducted from a day's (or other) measurement before dividing the quantity equally amongst the several intervals.

Determination of scale of rainfall ordinates.—The factor for converting ordinates of the rainfall curve into inches of rainfall was found by experiments in which a determined weight or volume of distilled water was poured into the receiving vessel, and the change of length of the ordinate produced thereby was carefully measured. In an experiment made on 13th May 1916, the quantity of water poured into the vessel was equivalent to ·390 inch of rain and the change of length in the ordinate ·387 of a true inch; whence the factor is found to be 1·008, which is applicable to all the rainfall registrations of the year 1916. In similar experiments made on the 21st May 1917, 31st May 1918, 21st June 1919 and 29th May 1920, the factors so determined were 1·030, 1·010, 1·021, and 1·015 respectively which have however not been made applicable to the rainfall registration of the respective periods because if we adopt, as was done, the co-efficient unity (1·000) the greatest error possible in registration would amount to less than ·01 inch. But this amount increases gradually to its maximum value ·01 as the ordinate increases from zero to ·50 inch and would be counterbalanced at one stroke when the discharge occurs.

The tabulations are made with the true-inch scale of the thermograph tabulating instrument, using the white line as datum; and the reading of this datum that corresponds to the reading ·000 of the rain curve, when the receiving vessel has just been discharged, is re-determined whenever the adjustment of the recording apparatus is disturbed. For this purpose an average is taken of a number of measurements for all of which the rain is falling very slowly at the time of the syphon's coming into action and for a short time longer. It is necessary to select such occasions because at times of heavy rainfall the curve has risen sensibly before the light has had time to make a distinct impression on the sensitive paper. The mode of tabulating is (1) to set the scale on the constant reading corresponding to the white line, (2) to move the sliding piece until the index is set upon the white line, and (3) to move the sliding bar till the index is set upon the curve, and then read the scale. By setting the paper carefully, so that a considerable length of the white line is practically parallel to the lateral motion of the frame, the repetition of the first two operations of tabulation is avoided until many hourly ordinates have been read; and then a new setting of the paper is made for another stretch of the white line.

(*b*) Seismological Instruments at Colaba, 1916 to 1920.

Milne's Seismograph.—This instrument, No. 12, supplied by R. W. Munro of London, was mounted in September 1898, in the small building formerly used for electrostatic observations which was materially altered to suit the requirements of a seismograph installation. It consists of a single room 10 feet square with a double folding door on the south side and a single large window on the north side. It is 14 feet high up to the eaves with a gable roof, and is well ventilated by adjustable openings made in the walls near the ground and in the gable ends at the top. The pier is placed in the middle of the room. Its foundations run $5\frac{1}{2}$ feet below the flooring, at which depth a huge basalt boulder was struck, over which was laid a bed of concrete 5 feet square and 2 feet deep. This bed supports a mass of rubble masonry 4 feet square and $1\frac{1}{2}$ feet deep, which finally carries a brick pillar $1\frac{1}{2}$ feet square and $5\frac{1}{2}$ feet high. The pillar is plastered with cement and carries a $\frac{1}{2}$ inch marble slab at the top. The special feature of this horizontal pendulum seismograph is a boom about 37 inches long consisting of a

light aluminium rod supported at two places. One end abuts against an adjustable pivot or a needle point projecting from the base of the "vertical," and at a distance of about 4·3 inches, from this end it is held in horizontal position by a platinum wire with a piece of unspun silk attached at the end, which passes over the "vertical" and is held in position there by suitable adjustable screws at the top. This piece of unspun silk is attached to the platinum wire at the top to secure free motion of the boom; and to steady the movement of the boom which is very light, as also to balance the weight of the outer end of the boom and to obtain the "steady" mass a balance weight is suspended on a stirrup fixed on the boom at about 4 inches, from the pivot end. The boom carries at the outer end a rectangular plate with a short slit cut parallel to the boom through which light from a lamp is reflected by a suitable mirror on to the film in the recording box which has a corresponding slit at right angles to the former, thus allowing only a point of light to affect the film. The distance of this slit from the pivot point is 37·3 inches.

The base of the "vertical" is formed by an iron triangular bed plate with three levelling foot-screws. One of the screws is finely divided with a pitch of 0·5 mm. which serves for final adjustment. The bed plate is so placed on the pillar that two screws (including the adjustment foot-screw) are located due E.—W., while the third points to North. The distance between the first two is exactly 150 mm. and therefore a complete turn of the adjusting screw raises or lowers that end by 0·5 mm. or through an angle $= \tan^{-1} \frac{1}{300}$. A lever attached to this screw with a scale enables it to be turned through 1°, 2°, or any other fraction of a complete turn. This, with the usual sensibility of about 5·0 mm. for a 1° turn of the screw, allows of the determination of the tilt up to 0·2″ of arc measured by a deflection of 0·5 mm. on the seismogram. The clock-work drives a roller, which pressing slightly against another friction roller allows of the sensitive film being carried between them at a uniform rate of about 59 mm. per hour. A small watch placed on the recording box, with its long minute hand carrying a small plate which extends to about 11 mm. over one end of the slit of the recording box, produces an eclipse every hour at 30 minutes past the hour cutting off the light at that end of the slit. Since December 1913 time is marked on the seismograms by an electrical contact clock, installed in the Colaba Seismograph room in connection with an electro-magnet and an eclipse fan which cuts off light for about half a minute at the exact full hour of Bombay mean time. By carefully watching the beginning and end of the eclipse by means of a chronometer, the exact time of the centre line of the white mark left on the sensitive film by the eclipse can be easily read off on the seismogram. Air tremors are frequent and troublesome at night especially during the winter months. But the precaution of regulating the temperature and draught in the room by heating the room by means of lamps or stoves initially suggested by this Observatory after a long series of experiments as a successful method of eliminating this form of disturbances, has proved fairly effective, and the traces are nearly always free from this source of vitiation. The instrument was discontinued from December 1918.

*The Colaba Seismographs.**—The Seismographs designed and constructed locally were installed in the building formerly known as the small magnetic room altered to suit the requirements of the installation till April 1912 when the old building was demolished and a new one was constructed on the same site. They are mounted on an isolated pillar 20 by 18 inches and 7 feet high with its foundation on a rock. No. 1. is oriented N.—S. so as to record E.—W. movements, while No. 2 is oriented E.—W. to record N.—S. movements.

The essential parts of the two horizontal pendulums as finally devised consist of a metal boom about 14 inches long, one end of which carries a steel point abutting against a shallow cup of agate fixed to a heavy screw in the pillar at a point about 74 inches below its top. The boom at its other end carries a heavy weight (70 lbs.). The pillar at the top carries a thick iron slab in which are firmly bolted the slow motion adjustment screws, the steel bearings and the finely balanced pivot which receives the tie from the boom. The weight at the other end of the boom carries a moveable polished metal pin with a device to allow for the adjustment of the zero etc., which receives a close but just fitting fork attached to a long thin tapering glass rod about 8 feet long which carries at its outer end an agate bearing to receive a fine lightly balanced pen (crow quill) on a knife edge, which gives the record in glycerine ink. The pen is easily replaced by a style attachment whenever it becomes necessary for experimental purposes to secure a record on smoked paper. The magnification is about 8 times. The recording cylinder (5 inches in diameter) runs on a helical axis in connection with clock-work, and while completing one revolution in one hour, advances $\frac{1}{10}$ inch, which enables a continuous record of twenty-four hours being taken on the chart. With a suitable electro-magnet and connection with an electrical clock time marks are recorded on the paper every minute, which with the regular motion of the cylinder and the clock have been found to give sufficiently accurate time for all practical purposes.

The instrument is brought into adjustment by the lower pivot screw which moves in and out enabling the period to be regulated, while the adjustment screw at the top of the pillar, giving the slow

* NOTE.—The recording arrangements of these instruments have for the purposes of investigation, often and again been altered from pen and ink records to charts on smoked paper with style, suitably modified in each case to suit the requirements of the investigations.

motion to the point of attachment of the tie from the boom, allows the zero to be properly adjusted. The vertical distance between the points of attachment of the horizontal pendulum is 74 inches, and the distance between two consecutive threads of the adjustment screw traversed by a *complete* turn of the screw is $\frac{1}{14}$ inch from which the angle of the corresponding tilt is obtained by calculation. After suitable adjustment of the recording lever, pen, etc., the displacement of the pen corresponding to a tilt due to a complete turn or a fraction of a turn of the screw gives the sensibility of the instruments. For accurate work, with delicate instruments of this type which involve considerable friction, it was found advisable *every* day, at the time of change of paper, to measure the sensibility to tilt and to ascertain that this remained practically constant. As the instrument has been constructed locally, it was thought undesirable to use the upper adjustment screw oftener than was absolutely necessary, its use being restricted only to the correction of zero. The following device, therefore, is adopted. The pillar is provided with a brass bar oriented E.—W., 1·5 and 0·4 inch in section and about 5 feet long, which is embedded in the pillar passing horizontally through it and about a foot below the top. A similar circular bar about 40 inches long is placed at right angles to the former and oriented N.—S. The arms of these two bars which project 21 inches and 10 inches respectively for the No. 1 and the No. 2 seismographs from the face of the pillar are daily used for supporting, for a few seconds, a weight of 7 lbs. This weight placed at a certain distance on the arms produces a definite tilt in the pillar in the direction of the weight. This has been very accurately ascertained periodically from a series of careful experiments and equals 0·57 second in arc in the case of the No. 1 seismograph and 0·31 second in the case of the No. 2 seismograph. The weight of 7 lbs. is therefore used to produce this known tilt from which the displacement of the pen on the paper enables the sensibility of the instrument to be effectually controlled.

Tromograph.—A lead tube 3·8 inches in diameter is laid E.-W. in the floor of the magnetograph room. The horizontal length of the tube is 22 feet and the ends are turned up vertically through properly constructed brick pillars 3 feet high at each end. The end of the tube which comes through the pillar at the east end is protected by a loosely fitting cover, while the west end of the tube opens just under the base plate of the recording instrument which is placed on the west pillar. The tube is filled with kerosine oil and thus practically forms a geodynamic level. A float just heavy enough to sink in the oil is properly adjusted and suspended from the support of the instrument by a very delicate Ayrton Perry spring kept under tension by the residual weight of the immersed float sufficient to produce a rotation of about 180° of the mirror. From the area of the tube and its length the tilt can be ascertained experimentally by the addition of a known quantity of oil which causes a certain displacement of the beam of light on the paper and is constant for the existing factors for a float of a particular diameter. The present arrangement of float, etc., provides for a sensibility equivalent to a tilt of 0·4″ or a vertical change in 'h' of ·0005 inch, for one millimeter, and the instrument is sensitive enough to pick up tilt movements of even distant earthquakes. Time marks are secured on the photographic traces by a small chronometer watch in electrical connection with an electromagnet which by means of an occulting fan, cuts off light for about a minute and a quarter every hour. In December 1913 the watch was removed and the same electrical clock which marks time on the Milne's seismograms, was connected up with this instrument. The scale as in Milne's seismograms is about 59 millimeters long for one hour and does not admit of greater accuracy in the determination of time than of 0·1 minute. To allow of more accurate determination of time, arrangements were made in August 1915 to secure a more open scale and the record was run about $2\frac{1}{2}$ times faster so that 157 millimeters could be paid out in one hour. The instrument was discontinued from August 1919.

The Omori-Ewing Seismograph.—This horizontal pendulum seismograph was received in November 1907 and has been installed, oriented N-S, on an isolated pillar in a small wooden building to the east of the Magnetometer office so as to record the E-W component of the ground movements. The essential parts of the instrument are in the main as described in the Colaba Seismographs. The cast iron base stand which is about 4 feet high, with a heavy ample base, supports a pendulum mass of about 75 lbs. by steel wires from the top. The length of the boom from the pivot to the centre of gravity of the steady mass is 2·0 feet, and the distance of this pivot from the point of attachment of the wires at the top of the stand is 3·42 feet. A fork and lever attachment in connection with the mass allows the movements to be magnified from 20 to 40 times. The lower magnification (20) has been used for the records during the period. The traces are taken on a smoked paper with a style, and a suitable device for time marks every minute is provided by an electro magnet in electric connection with a standard clock which simultaneously marks time on this and on the Colaba (N-S) Seismograms. In May 1915 the instrument was slightly modified and the iron base stand was lifted up and mounted on a stone pillar so as to increase the vertical height of the pendulum from 41″ to 81″. This allows the pendulum to be more readily and easily made to swing freely and also to be adjusted to slow periods of 30 seconds and more.

(*c*) Magnetical Instruments at Colaba, 1916 to 1920.

Kew Unifilar Magnetometer.—Magnetic work was stopped at Colaba from the 1st April 1906, and since then observations of declination only, taken once a month about the 15th, have been continued. A description of the standard instrument No. 23 by Elliott Brothers, with which the observations of Declination for the period 1916 to 1920 have been taken, will be found on pages xxxiii to liii of the Introduction to the "Bombay Magnetical and Meteorological Observations, 1865—1870"; the description includes also an account of the situation of the instrument, of the nature of the observations taken with it—with examples of observation and computation forms filled up with the figures of actual observations—and of the formulæ of reduction and the constants involved in them.

(*d*) Magnetical Instruments at Alibag, 1916 to 1920.

Magnetometers.—Two magnetometers have been under observation regularly during the period. Magnetometer No. 7 by Cooke and Sons which is the standard instrument at Alibag is of the ordinary type of Kew pattern instruments but is modified and improved in several important details. The telescope is about 8″ in focal length with two eye pieces of low and high power. It carries a level and is pivoted on a transverse axle as in a transit to allow it to be used to a certain extent for motion in the vertical plane. The diaphragm instead of carrying the usual cross spider lines is filled with an optically pure glass on which are engraved two scales vertically and horizontally. The vibration magnet which is carried in a light aluminium stirrup has a cross engraved on a glass at its south end, the north end carrying the lens. The stirrup with the magnet in it is suspended by a phosphor bronze ribbon instead of the usual silk fibres, by means of clip-chucks. A finely divided plummet is provided, the scale of which is brought into focus and read with the telescope through a suitable lens brought in position for the time in front of the object glass. This arrangement ensures a more or less perfect elimination of the torsion of the suspension ribbon allowing of a more accurate determination of the residual torsional error than is possible in the Kew pattern instruments. As the telescope diaphragm carries the scale, the usual Kew type mirror attachment to the deflection magnet and the special ivory scale are omitted and instead the stirrup with its magnet is made to carry below the magnet an aluminium collimator tube with a lens at the telescope end and a piece of glass engraved with cross lines at the other. The deflection bar is not divided as in the Kew instruments but a certain number of holes is accurately bored in its upper edge at exact distances 22·5 c.m., 26·25 c.m., 30·0 c.m., 35·0 c.m., and 40·0 c.m., measured from the centre of the instrument. The carrier of the deflector (vibration) magnet which rides on the bar during deflection experiments has a small metal plug protruding centrally from its base. This plug closely fits the holes in the bar and the operation of setting the magnets hence at the various distances on the bar does not require any careful adjustment as in the Kew type instruments.

The other instrument is No. 3 by the Cambridge Scientific Instrument Company and is of the usual Kew pattern.

Instrument No. 7 is observed on the second floor of the tower of the absolute observation buildings, while instrument No. 3 is observed on the first floor, each instrument being permanently allowed to stand on its own pillar on the respective floors. The result of a long series of comparison of the instruments showed that after the application of the full distribution correction No. 7 read 2γ higher than the Colaba Standard Magnetometer by Elliot while No. 3 gave the same value as the Colaba standard. To ascertain how far the difference due to site affected the absolute determinations on each floor, a set of careful comparative observations was taken in 1917 with Magnetometer No. 7 and Inductor No. 41, on the two floors alternately. The results showed that Horizontal Force read lower by 3γ, Easterly Declination higher by 1′·4 and Inclination lower by 0′·4 on the second floor than on the first floor. The site differences obtained initially in 1904 were 1′·4 for D and practically nil for H and I, Magnetometer No. 7 and Dip Circle No. 160 being then used for the purpose. As the differences are very small a much larger series of observations is clearly essential and the values of site differences can only then be determined and adopted finally.

The instrumental constants adopted in the reductions are given below.

Magnetometer No. 7.

Induction co-efficient $\mu = 7{\cdot}82$ or $\log \mu = 0{\cdot}89321$.

$\log \pi^2 K = 3{\cdot}39931$ and $3{\cdot}39981$ at 0° C and 50° C respectively.

Auxiliary inertia cylinder: length = 9·288 cms.;

diameter = 1·017 cms.;

mass = 63·822 grammes.

The temperature correction for decrease in the moment of the collimator magnet is equal to ·000396 $(t\text{-}0^\circ) + \cdot 00000088\ (t\text{-}0^\circ)^2$, t representing the temperature in centigrade scale at which the observation is made.

In the graduations of the deflection bar the true distances at 0° C corrected for bending, corresponding to apparent distances 22·5, 26·25, 30, 35, and 40 cms. are respectively 22·493, 26·242, 29·994, 34·991 and 39·983 cms.

The angular value of one scale division in the telescope = 1′·363.

The adopted values of the distribution constants are P = + 9·549 and Q = — 569·0. and $\log 1/(1 + \frac{P}{r^2} + \frac{Q}{r^4}) = 9\cdot 99283$ for 22·5 cms. and = 9·99572 for 30·0 cms.

The attached thermometer of the instrument has no correction from 0° C. to 20° C. and from 30° C. to 45° C; the correction at 25° C. is — 0° ·1 C.

Magnetometer No. 3.

Induction co-efficient $\mu = 7\cdot 95$ or $\log \mu = 0\cdot 90037$.

$\log \pi^2 K = 3\cdot 44108$ and 3·44160 at 0° C. and 50° C. respectively.

Auxiliary inertia cylinder: length = 10·001 cms.

diameter = 0·989 cm.

mass = 65·041 grammes.

The temperature correction for decrease in the moment of the collimator magnet is equal to ·000381 $(t\text{-}0^\circ) + \cdot 00000105\ (t\text{-}0^\circ)^2$, t representing the temperature in centigrade scale at which the observations are made.

In the graduations of the deflection bar the true distances at 0° C. corrected for bending, corresponding to apparent distances 23, 25, 30, 35, 40 and 45 cms., are respectively 22·995, 24·995, 29·994, 34·993, 39·991 and 44·990 cms.

Deflection apparatus, angular value of one scale division = 61″·5.

Collimator magnet, ,, ,, ,, = 1′·91.

The adopted values of the distribution constants are P = + 2·660, Q = — 1033·5 and $\log 1/(1 + \frac{P}{r^2} + \frac{Q}{r^4}) = 9\cdot 99942$ for 23 cms., and = 9·99927 for 30 cms.

The corrections for the thermometer attached to the instrument for vibration observations are — 0°·2 C. from 5° C. to 40° C and — 0°·1 C. at 45° C. In the case of the thermometer for deflection observations the corrections are — 0°·1 C. at 5° C. and 45° C. and — 0°·2 C. from 15° C. to 40° C.

Specifications of magnets of Magnetometer No. 137.

Induction co-efficient $\mu = 7\cdot 67660$ or $\log \mu = 0\cdot 885169$.

$\log \pi^2 K$ at 0°C = 3·40273.

Auxiliary inertia cylinder: length = 9·5017 cms.

diameter = 1·0297 ,,

mass = 67·513 grammes.

The temperature correction for decrease in the moment of the collimator magnet is equal to ·000351 $(t\text{-}0^\circ) + \cdot 00000108\ (t\text{-}0^\circ)^2$, t representing the temperature in centigrade scale at which the observations are made.

Collimator magnet, angular value of one scale division = 1′·88.

The adopted values of the distribution constants are $\log 1/(1 + \frac{P}{r^2} + \frac{Q}{r^4}) = 9\cdot 99485$ for 23 cms., and 9·99698 for 30 cms.

Earth Inductor.—This instrument No. 41 by Schulze of Potsdam with Galvanometer No. 200 by Plath was installed on specially constructed pillars in the room on the 2nd floor of the observation tower in May 1908. The galvanometer is mounted on a separate pillar to the south of that which carries the Inductor. A little to the right on the same pillar and in the line of the magnetic meridian passing through the axle of the Inductor coil, is fixed the rotation stand. The arrangement allows the observer to watch the movement of the needle conveniently through the galvanometer telescope while the coil is being rotated from the stand on the right of the observer. The rotation stand is of special construction. It is adjustable in direction and height to allow of the flexible tube from the Inductor to be attached to it at the correct distance and angle from the Inductor, and is specially devised to protect the Inductor when it is clamped to the angle of inclination and rotated, from any undue strain of the flexible tube. The Inductor consists essentially of a delicately balanced coil, the axle of which is adjustable to the necessary degree of accuracy both in azimuth and in altitude.

The horizontal circle admits of an adjustment of the axis of the coil in azimuth to one minute of the true declination, while the vertical circle with its micrometer motion screw, allows the inclination to be read up to 1·5 seconds of arc. A gear with a suitable flexible tube is provided to set the axle of the coil in rapid rotation.

This motion induces currents in the coil as it cuts the lines of force of the terrestrial magnetic field in which it rotates. The alternating currents so generated are converted into direct continuous currents by means of a delicate commutator and are then conducted by wires to the sensitive mirror galvanometer by Plath. It is obvious that when so rotating if the axle of the coil adjusted in declination is inclined to the horizon coincident with the exact angle of inclination, no currents can be induced as every point of the coil while rotating, is carried round the same line of force while at any other angle as the points cut different lines of force, currents would be generated and detected with the aid of the galvanometer. The larger the departure of the inclination of the axle of the coil from the true dip, the stronger would be the induced currents and greater would be the deflection of the needle of the galvanometer. The mirror galvanometer with its four coils and battery of directing magnets and the delicate astatic needle suspended by a very fine quartz fibre, allow of very sensitive adjustments to be made for the detection of the feeble currents generated in the coil when the angle of inclination of the coil is closely near to the true dip, a very small excess or defect in the angle being indicated respectively by a positive or negative deflection of the galvanometer needle. The true co-dip is given by the difference of the circle readings for the axis of the coil in the true vertical position and in the inclined position corresponding to the exact angle of the dip. In this 'null' position with a fairly rapid but constant and steady motion of the coil no current can be induced as shown by the undisturbed condition of the galvanometer needle.

To complete the duplicate installation of all important magnetic instruments which is essential both for accuracy and check work, inductor No. 108 by Otto Toepfer was ordered out and installed on the first floor in May 1914, and was under regular observation every alternate day during the period. The instrument is precisely of the same type as the Schulze's inductor described above, the only notable difference being in the suspension arrangement of the galvanometer needle, a silk fibre being used for the purpose.

The Magnetographs.—The three magnetographs in use at Alibag are by Watson. They are mounted on isolated pillars in the room of the magnetograph building, a description of which is given in the observatory volume for 1906 to 1910.

The magnet of the horizontal force instrument is made up of a system of three slender bar magnets arranged vertically on a light central aluminium piece. This arrangement of the magnet system instead of one single large magnet gives distinct advantages in respect of mass and magnetic moment while contributing also to a reduction of the temperature co-efficient. The carrier of the magnet system is supported by a very fine quartz fibre suitably attached to the torsion head with a scale and clamping screw for the adjustment and measurement of the angle of torsion. The centre piece of the magnet system carries a light aluminium carrier made of two cross bars designed to receive a mirror. The bars carry adjusting screws by which the mirror can be finally adjusted about a vertical axis in relation to the magnetic axis of the system of magnets, as also about a horizontal axis. Just below this is fixed to the base plate of the instrument, another mirror which serves the purpose of securing the zero or base line trace. This mirror is also adjustable in azimuth and verticality. The magnet system swings in a massive copper block which forms the frame of the instrument, within a small chamber of the same form as the magnet system, but just large enough to allow free motion to the magnets. This arrangement provides not only for an effective damper but also secures uniformity of temperature of the magnets and the attached thermometer. The bulb of the thermometer is designed to lie in as close a proximity of the magnet system as possible; and as both are enclosed in and are closely surrounded by the copper frame, the thermometer can be relied upon to register the true and actual variations of temperature of the magnet system, which is so vitally essential for requirements. The thermometers are specially constructed with open scales, 1° F being equal to a length of about 0·3 inch so that 0°·1F can be read off accurately enough for all practical purposes. The side of the metal box forming the frame work of the instrument, which faces the lamp slit and the recording apparatus, carries a plano-convex lens of 165 cm. focal length.

In the declination magnetograph all the detailed arrangements are the same as described above, but the suspension of the magnet in this instrument is secured by a fine ribbon of phosphor bronze instead of a quartz fibre. The magnet system here consists of nine slender magnets arranged in a circle of about 12 mm. diameter.

These two instruments recording H and D variations, the former oriented North-South and the latter East-West, have their recording apparatus installed on a single central pillar and are run together by the same clock. The drums carrying the sensitive bromide paper are fitted in well closed wooden boxes to facilitate the removal and replacement of the sensitive papers in a dark room. The tube which

connects the recorder and the instruments, carries at the end towards the former a glass scale and moveable mirror which can be lowered into position for eye observations. The lamp and slit, as is usual in all such instruments, are devised to move through a distance of about $\frac{3}{4}$ of an inch to allow of two days' curves being taken on one and the same sheet of paper. The beam of light as it passes through the slit traverses the tube and enters the magnet chamber through the plano-convex lens. As the two mirrors are adjusted at slightly different angles of inclination, the beam is separated after reflection here into two repassing the lens and tube they enter the recording drum through a fine slit which being very close to the surface of the paper allows sharp images of the slit as reflected from the magnet and zero mirrors to be received on the paper. Arrangement for the introduction of a condensing cylindrical lens is provided with these instruments to allow of less sensitive papers to be utilized on the magnetograph, but as the image is appreciably less sharp than in the previous arrangement and as no other difficulties have compelled the use of the lens* it has not been used except in the case of the V. F. Magnetograph where it has been used uninterruptedly from April 1914.

The principal details of the Vertical Force Magnetograph are in the main the same as in the other magnetograph. The magnet system here consists of eight slender steel rods, each 10 cms. long and 0·2 cm. in diameter, fixed in two horizontal rows of four each in a central frame made of aluminium. The agate knife edge and an adjustable mirror lie between these rows on the frame which carries also a short thin vertical rod above on which a small weight is screwed, by raising or lowering which the final adjustment of the centre of gravity and of the sensitiveness of the balance, can be made. The frame carries a light vane and a counterpoise horizontally for adjusting the balance. A zinc rod with small moveable weights is screwed into a small bar which is attached to two of the magnets, but does not touch the central frame through which it passes freely as the hole is kept wide enough for this. With proper adjustment of these weights carried by the zinc bars the readings of the magnet balance are made nearly independent of temperature variations. The outer box which is of metal, carries centrally on a short pillar the agate plane for receiving the agate knife edge of the magnet system, which has a suitable device with a lever and hole, and slot and plane arrangement for lifting the magnet off and lowering it on the agate plane exactly in the same position as before. The box also contains five copper plates arranged vertically side by side as close as possible but just sufficiently apart to allow the slender magnets to move freely between them. These serve as effective dampers. The scale co-efficients of the force magnetographs are derived periodically from deflection observations performed on the instruments with deflectors as already referred to, at 100 cms. distance in the case of H and at 75 cms. distance in the case of V magnetograph. Up to May 1912 the observations were taken every week and the mean of the four or five such weekly determinations was used in the reductions. After that date observations have been taken every fortnight and the value used for any month is the mean of the mean observed value for that month and those of the preceding and succeeding months. The deflector used up to May 1918 was magnet No. 3 while after that date magnet of No. 137 was employed for this purpose. The values of the co-efficients used in the reductions are given below :—

Scale co-efficients of H. F. Magnetograph for 1 cm. of ordinate on the photographic paper.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1916 ..	45·5	45·4	45·3	45·3	45·3	45·4	45·4	45·4	45·4	45·3	45·3	45·5
1917 ..	45·3	45·3	45·2	45·2	45·2	45·3	45·2	45·2	45·2	45·2	45·2	45·2
1918 ..	45·2	45·1	45·0	45·0	45·1	45·1	45·1	45·2	45·3	45·3	45·2	45·1
1919 ..	44·9	44·8	44·7	45·0	45·0	45·2	45·0	44·9	44·9	44·9	45·1	45·1
1920 ..	45·2	45·0	44·9	44·7	44·8	44·9	44·9	44·8	44·8	44·8	45·0	45·1

1γ = ·00001 C. G. S.

Scale co-efficients of V. F. Magnetograph for 1 cm. of ordinate on the photographic paper.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1916 ..	93·2	93·1	93·0	93·4	93·7	94·0	93·9	93·8	93·8	94·1	94·1	93 9
1917 ..	93·6	93·5	93·5	94·0	94·2	94·3	93·8	93·5	93·5	93·5	93 5	93·3
1918 ..	93·2	93·3	93·5	93·9	94·3	94·2	94·2	94·1	94·1	94·3	94·8	95·0
1919 ..	94·8	94·6	94·6	94·4	94·8	95·0	95·2	94·8	94·6	94·7	95·1	95·3
1920 ..	95·6	95·7	95·8	96·1	96·2	96·2	95·7	95·6	95·9	96·0	96·4	96·1

1γ = ·00001 C. G. S.

*The formula given below for the scale co-efficient will slightly be modified by the introduction of the additional lens, in respect of the Declination Magnetograph.

The several measurements necessary for the determination of the co-efficient of the Declination Magnetograph are as follows :—

Distance D from the lens to the edge of the recording cylinder = 167·98 cms.

Distance d from the lens to slit = 156·29 cms.

Distance m from mirror to lens = 1·744 cms.

Thickness of the cylindrical lens t = 0·33 cms.

The change due to 90° of torsion of the phosphor bronze ribbon was found to be 1·00 cm. on the paper whence the torsion co-efficient $1 + \frac{H}{F}$ works out as 1·00530.

The scale co-efficient for 1 cm. of ordinate hence as given by the formula

$$a = \frac{1}{2D}\left(1 + \frac{m}{\frac{2Dd}{D-d} + m}\right)\left(1 + \frac{H}{F}\right)$$

works out as 10'·28 which has been used in the reduction during the period.

The temperature co-efficient of the Horizontal Force Magnetograph has been determined by heating experiments and its adopted value is ·000036 C. G. S. for 1° F.

The temperature co-efficient of the Vertical Force Magnetograph was found in the same experiments to be practically nil as no appreciable change in force after allowing for the actual diurnal change, could be definitely ascertained as being due to temperature effects.

The entries in tables of observation of absolute Horizontal Force with instruments No. 7 and No. 3 given in tables Nos. 1a and 1b for each year are copied directly from the observation books and the computation forms. It was remarked in the Observatory Volume, 1911—15, that the values of the moments of the magnets of instrument No. 3 showed sudden changes in June 1912 and May 1915, that the distribution of magnetism of the magnets was markedly affected in 1912 and that there were reasons for thinking that the distribution conditions of this instrument initially derived and adopted at Colaba were slightly affected in the transit of the instrument from Colaba to Alibag. The behaviour of this instrument became more and more unsatisfactory so much so that a replacement of the magnets was considered necessary and was eventually done on May 20, 1918, by those of magnetometer No. 137. Monthly means of observed moments of magnets and the differences in the values of H derived from the deflection distances, 22·5 cms. and 33·0 cms., for instrument No. 7, have been collected in tables 1 and 2 given below. They serve to show at a glance how this magnetometer has behaved during 1904 to 1920.

Eschenhagen Variometers.—Two Eschenhagen variometers, one for horizontal force and the other for vertical force, are installed on separate pillars in the magnetograph room. These were used in the years 1916 to 1920 as eye reading instruments, the observations being taken at the hours already specified. Deflection experiments were made once a fortnight with a view to determine the scale-coefficients. These observations have not been used in obtaining the results published in this volume ; they were mainly utilised for a comparative study of the records.

TABLE 1.—*Mean monthly observed values of the moment of the vibration magnet of Magnetometer No. 7.*

Years.	Months.												Year.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
1904 ..	941·98	941·44	941·65	941·49	940·88	941·15	940·96	940·86	940·73	940·88	940·69	940·39	941·06
1905 ..	940·57	940·61	940·46	940·30	940·16	939·86	939·66	939·79	939·58	939·68	939·48	939·65	939·98
1906 ..	939·53	939·59	939·55	939·45	939·39	939·41	939·45	939·52	939·58	939·49	939·37	939·51	939·49
1907 ..	939·42	939·48	939·50	939·35	939·31	939·25	939·25	939·33	939·33	939·24	939·22	939·31	939·33
1908 ..	939·37	939·33	939·30	939·22	939·07	939·16	939·10	939·18	939·16	939·23	939·22	939·25	939·22
1909 ..	939·19	939·32	939·18	939·07	939·07	939·00	939·08	939·12	939·10	939·06	939·06	939·22	939·12
1910 ..	939·11	939·12	939·05	939·02	938·92	938·77	938·92	938·96	938·87	938·74	938·92	938·94	938·94
1911 ..	938·95	938·93	938·96	938·73	938·72		938·24	938·36	938·32	938·27	938·27	938·33	
1912 ..	938·38	938·40	938·43	938·18	938·15	937·95	938·14	938·17	938·00	938·10	938·14	938·14	938·18
1913 ..	938·20	938·21	938·18	937·99	937·98	937·90	937·89	937·89	938·00	938·06	938·03	938·02	938·03
1914 ..	938·12	938·09	938·08	937·98	937·86	937·78	937·87	937·91	937·86	937·82	937·80	937·89	937·92
1915 ..	937·99	937·89	937·84	937·77		936·53	936·59	936·46	936·56	936·65	936·51	936·61	
1916 ..	936·60	936·61	936·45	936·67	936·57	936·39	936·47	936·62	936·59	936·51	936·60	936·63	936·56
1917 ..	936·61	936·60	936·67	936·56	936·31	936·41	936·44	936·32	936·42	936·53	936·45	936·52	936·49
1918 ..	936·70	936·76	936·56	936·60	936·58	936·53	936·36	936·49	936·52	936·55	936·42	936·54	936·55
1919 ..	936·59	936·48	936·68	936·40	936·45	936·43	936·39	936·44	936·48	936·50	936·43	936·45	936·48
1920 ..	936·51	936·51	936·57	936·44	936·42	936·44	936·42	936·51	936·51	936·48	936·47	936·40	936·47

TABLE 2.—*Mean monthly differences in the value of Horizontal Force determined from observations with instrument No. 7 at the two deflection distances of 22·5 cms. and 30·0 cms.*

Unity = 1 γ.

Years.	Months.												Year.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
1904 ..	0·0	+0·6	+0·3	+0·9	+1·4	+0·5	−0·9	+1·0	−0·1	+1·4	0·0	−0·5	+0·4
1905 ..	+1·0	+1·2	+0·7	−0·1	0·0	+1·0	−1·5	−0·9	−1·5	−0·1	+0·9	+1·0	+0·1
1906 ..	−0·9	+1·0	+0·5	−0·7	−0·5	−0·1	−0·6	−0·8	+2·6	−0·3	−0·1	+1·0	+0·1
1907 ..	+1·1	+1·2	+1·9	+1·1	+1·4	+0·5	+0·1	−1·5	−1·0	−0·6	+1·5	+1·1	+0·6
1908 ..	−0·6	+0·4	+0·1	+0·8	+1·9	+0·9	+1·0	−2·0	−1·1	−0·6	−0·7	−0·2	0·0
1909 ..	−2·7	−1·5	+1·2	+1·6	+1·4	+1·4	−0·1	−0·9	−0·6	−0·2	0·0	+0·1	0·0
1910 ..	−0·1	−0·6	+1·0	+1·4	+2·0	+3·5	+1·6	−1·4	−1·6	+0·7	+0·3	−0·4	+0·5
1911 ..	+1·7	+1·9	+1·2	+1·7	+1·2	+3·8	+0·6	+0·5	+1·7	+1·4	+0·2	+1·5	+1·4
1912 ..	+3·0	+2·0	+0·8	+0·2	+1·1	+0·5	+0·7	+1·0	+0·5	+2·7	+2·1	+2·2	+1·4
1913 ..	+2·7	+2·5	+2·5	+1·1	+1·5	+2·1	+2·7	+1·8	+2·4	+2·9	+2·6	+2·0	+2·2
1914 ..	+2·7	+3·0	+3·3	+3·2	+4·6	+2·2	+2·0	+0·7	+1·8	+1·7	+2·7	+3·2	+2·6
1915 ..	+1·9	+2·1	+2·5	+1·5	+4·5	+4·2	+0·9	+1·4	+1·3	+1·4	+2·7	+2·9	+2·3
1916 ..	+3·4	+3·6	+2·5	+2·7	+2·7	+1·6	+0·4	+0·7	+0·1	+1·9	+0·7	+2·6	+1·9
1917 ..	+2·7	+2·2	+3·1	+2·5	+0·8	+1·0	+1·9	+0·6	+0·6	+0·8	−0·2	+2·0	+1·5
1918 ..	+2·3	+6·0	+1·7	+0·9	+1·6	+2·3	−1·7	+1·7	+1·9	+2·5	+1·1	+0·7	+1·7
1919 ..	+3·2	+4·0	+3·4	+1·0	+3·4	+3·9	+3·1	+1·7	+3·3	+2·2	+3·6	+2·0	+2·9
1920 ..	+5·0	+4·0	+7·2	+6·5	+3·0	+4·4	+5·5	+4·4	+3·2	+5·1	+4·9	+2·8	+4·7

Inclination results in the Colaba-Alibag series up to the year 1908 were derived from observations with the dip circle only. On the installation of the inductor which was eventually to replace the dip circle, it became necessary for the purpose of preserving strict continuity, to determine the true instrumental difference between the two inclinometers. For this purpose, for two years 1909 and 1910 observations with the dip circle were continued as usual on Tuesdays and Fridays and the inductor was observed every Saturday. The indications of the instruments duly corrected for natural change to the mean of the day with the help of the magnetographs, shewed that as the average result for the year 1909 the inductor recorded a higher inclination by 2′·0. Similar result for the year 1910 however made out this difference to be 3′·3. The secular change in dip from 1909 to 1910 as made out by the inductor hence was 8′·6 while the dip circle shewed a change of 7′·3 only. It became apparent thus from the outset that the usual procedure adopted at the Observatory for the derivation of the mean values of inclination for the month and the year as also the values of V obtained with the help of differential corrections from the H and V magnetographs, was by no means free from objections, and a strong suspicion was created that we had here to deal more with errors of the zero creep of the magnetographs rather than the probable errors of observations or instrumental changes of the dip circle or the inductor. To investigate this question, for one year between May 1911 and May 1912 absolute observations of H and D were made every day in the year except on Sundays and holidays, each of the two magnetometers being observed on alternate days. Also observations of I with both the instruments—Schultz's inductor and dip circle—were made every day during the period. This inquiry in connection with the stability of the base line values of the H, D and V magnetographs resulted in the following decisions: (1) that no increase in the number of absolute observations of H and D was necessary as the bi-weekly observations were found quite sufficient in number to give the daily base line values of these two magnetographs reliably correct to the accuracy aimed at but (2) that in the V magnetograph the stability of the zero line was not such as could be depended upon for more than twenty-four hours and hence if the curves were to be standardised with the necessary accuracy for the derivation of the 'daily' base line values, it was obviously imperative to have absolute observations of inclination made every day throughout the year. Such daily observations of I have since been adopted and these have proved useful besides in enabling the instrumental difference between the inductor and the dip circle to be evolved quite accurately. The final differences in the values of inclination and vertical force, applicable to observations with the dip

circle prior to the year 1911 and with the inductor thereafter were, as shown by the investigation, 1′·7 and 22 γ respectively, the later series by the inductor giving higher values of I and V.

Absolute observations of H. D and I are made on the second floor of the Magnetometer office tower with standard instruments—Magnetometer No.7, and Inductor No. 41. On the first floor the subsidiary instruments used are Magnetometer No.3 and Inductor No. 108. The average differences in the absolute determinations as shown by the results of observations at the two places from 1904 to 1915 for H and D and from 1911 to 1915 for I, which are made up of instrumental and site differences, indicated a small and irregular creep. To ascertain how far the difference due to site, assuming it as constant in the first instance, affects the absolute determinations at each place, a set of careful comparative observations was taken during the year 1917 with Magnetometer No. 7 and Inductor No. 41. The results show that on the second floor H reads lower by 3 γ, Easterly Declination higher by 1′·4 and I lower by 0′·4 than on the first floor. The site differences as obtained initially were 1′·4 for D and practically nil for H and I, Magnetometer No. 7 and Dip Circle No. 160 being then used for this purpose. The whole question however is under investigation, and a much larger number of special observations seems to be essential, for obvious reasons, for the detection and separation of such minute instrumental and natural changes.

8. Processes of Reduction and Description of the Tables of Results, 1916 to 1920.

(*a*) *Meteorological tables.*

Pressure of Vapour and additional capacity of the Air.—Having obtained, from the tabulations of the barograms and thermograms, hourly values of barometric pressure, temperature of the air and temperature of evaporation, the pressure of vapour was calculated for each hour with the aid of a table by the formula

$$f'' = f' - \cdot 01147\ (t - t') \times \frac{P - f'}{30}$$

in which t and t' denote the temperatures of the air and wet bulb thermometers respectively, f'' and f' the pressure of vapour at the temperature of the dew point and at temperature t', and P the barometric pressure. The values of the pressure of vapour at different temperatures were taken from the following table, the numbers in which have been extracted from Boileau's Collection of Tables :—

Table I.—*Regnault's values of the Pressure of Vapour at different temperatures.*

Temperature.	Pressure of vapour.	Temperature.	Pressure of vapour.	Temperature.	Pressure of vapour.	Temperature.	Pressure of vapour.	Temperature.	Pressure of vapour.	Temperature.	Pressure of vapour.	Temperature.	Pressure of vapour.	Temperature.	Pressure of vapour.
°	Inch.	°	Inch.	°	Inch.	°	Inch.	°	Inch.	°	Inch.	°	Inch.	°	Inch.
35	·204	43	·278	51	·374	59	·500	67	·662	75	·868	83	1·128	91	1·455
36	·212	44	·288	52	·388	60	·518	68	·685	76	·897	84	1·165	92	1·501
37	·220	45	·299	53	·403	61	·537	69	·709	77	·927	85	1·203	93	1·548
38	·229	46	·311	54	·418	62	·556	70	·733	78	·958	86	1·242	94	1·597
39	·238	47	·323	55	·433	63	·576	71	·758	79	·990	87	1·282	95	1·647
40	·248	48	·335	56	·449	64	·596	72	·784	80	1·023	88	1·324	96	1·698
41	·257	49	·348	57	·466	65	·617	73	·811	81	1·057	89	1·366	97	1·751
42	·267	50	·361	58	·482	66	·639	74	·839	82	1·092	90	1·410	98	1·805

To find the additional capacity of the air the pressure of vapour is deducted from the number in the above table standing opposite to the temperature of the air.

Barometric Pressure.—In table I*a* is shown, for every day in the year for each year, the mean of 24 hourly tabulations of the barograph, corrected to agree with Newman's barometer No. 58 ; also the mean pressure for each month and each year, and the excess of each monthly mean above the annual mean for the same year. The principal features of the annual variation are indicated at the foot of the table. The maximum and minimum daily pressures for each month are distinguished by being printed in strong figures.

In Table I*b* are given the diurnal inequalities of the Barometric Pressure for each month of the year and for the whole year. The figures represent the excesses of the mean hourly values of pressure over the respective monthly means. The greatest positive and negative excesses over this mean are printed in strong figures, the difference between the two giving the periodic diurnal range being shown at the foot of the table.

Temperature of the Air, etc.—The plan of the following tables is the same as that of Tables I*a* and I*b*, but the meteorological elements they represent, and the sources from which the numbers are obtained and the mode of their derivation, are as stated below :—

Tables IIa and IIb.—Temperature of the air derived from hourly tabulations of the thermograph dry-bulb.

Tables IIIa and IIIb.—Pressure of vapour derived from hourly tabulations of the thermograph dry-bulb and wet bulb, and of the barograph ; and calculated in the manner described above.

Tables IVa and IVb.—Additional capacity of the air derived from hourly differences between the pressure of vapour corresponding to the temperature of the air and the calculated actual pressure of vapour.

Tables VIa and VIb.—Velocity of the wind without regard to direction derived from hourly tabulations from the register of the Robinson-Beckley anemograph reduced by the factor 0·73.

Tables VIc and VId.—Velocities of the north and east components of the wind derived from hourly tabulations from the register of the Robinson-Beckley anemograph.

Tables VIf and VIg.—Velocity of the wind derived from hourly tabulations from the register of the Dines' anemometer.

In Tables II*c* and II*d* are given respectively the maximum and minimum temperatures during the day derived from a pair of maximum and minimum thermometers Nos, 10329 and 37909 by Negretti and Zambra.

Tables V*a* and V*b* are on the same plan as Table I*a* except that the entries made in them, refer to aggregates of rainfall—daily, monthly and yearly instead of mean values : and they are sufficiently explained by their several headings.

The numbers in Table VI*e* refer to wind velocities and are derived from hourly tabulations from the register of the Robinson-Beckley anemograph. The temperatures of the ground given in Table VII are derived from the readings of the several thermometers, made five times a day as regards the 1 inch and 9 inches deep thermometers, and once a day as regards the 20 inches, 60 inches and 132 inches deep thermometers.

In Table VIII are collected data showing the extreme limits between which the oscillations of barometric pressure, temperature of the air, pressure of vapour, and additional capacity of the air were confined in each month and in the whole year, and also the ranges of the respective oscillations. Table IX*a* and IX*b* give the daily and monthly means and the annual variation of the relative humidity of the air and of the extent of cloudy sky derived from observations made at 6, 10, 14, 16 and 22 hours daily.

The five-day means in Table X are derived from the hourly tabulations of the barograph (reduced to the readings of Newman's barometer No. 58) and thermograph, from the measurements in Newman's rain gauge, and from the hourly tabulations from the register of the Robinson-Beckley anemograph.

In other respects these tables require no explanation beyond their titles, the headings of the several columns, and the foot-notes.

(*b*) *Tables of magnetic results.*

Table I*a* gives for each year data and results of absolute observations of vibration and deflection taken with magnetometer No. 7 while Table I*b* gives similar results from supplementary observations with instrument No. 3. Table II*a* gives data and results of observations of absolute Declination taken with magnetometer No. 7 while Table II*b* gives similar results from supplementary observations with instrument No. 3. Table III*a* gives results of observations of Inclination taken with inductor No. 41 by Schulze and Table III*b* gives results of supplementary observations of Inclination taken with inductor No. 108 by Otto Toepfer.

Tables IV*a* to 1V*e* give for each year the base line values of the Horizontal Force magnetograph as derived from absolute observations of H by magnetometer No. 7 while table IV*f* gives similar values derived from observations with instrument No. 3, details of which are given in Tables I*a* and I*b* for each year. They serve indirectly the useful purpose of indicating the probable errors of the absolute determinations, while furnishing smooth values of the base line adopted for the derivation of the correct daily mean values of H.

Tables V*a* to V*e* similarly give for each year the base line values of the declination magnetograph derived from observations with instrument No. 7 while Table V*f* gives similar values derived from observations with instrument No. 3.

Tables VI*a* to VI*e* give for each year the daily means of Horizontal Force derived from twenty-four hourly ordinates, while Tables VII*a* to VII*e* similarly give the daily means of absolute declination.

Table VIII gives the adopted monthly means of H, D, V, and I determined by the usual method which consists in correcting the monthly mean of the observed absolute values by the difference between the mean ordinate at the time of the absolute determinations and the mean monthly ordinate derived from the twenty-four hourly tabulations, while Table VIII*a* gives similar values derived from supplementary observations with the auxiliary instruments.

Tables IX*a* to IX*e* give for each year the magnetic character of each day as determined from the inspection of the Horizontal Force traces, and the list of quiet days selected from them. Tables IX*f* to IX*j* give the magnetic character of each day from 10 a.m. to 10 a.m. and also the difference of the daily mean of H from that of the preceding day. The tables are a continuation of table 381 published in the Colaba Magnetic Data, 1846 to 1905, Part II, Chapter X, and are derived exactly on the same lines.

Tables X*a* to X*e* give for each year the non-periodic diurnal ranges of Horizontal Force determined from the hourly tabulations.

Tables XI*a* to XI*e* similarly give the Declination ranges.

Tables XII*a* to XII*f*, XIII*a* to XIII*f*, XIV*a* to XIV*f*, and XV*a* to XV*f* give respectively the diurnal inequalities of Horizontal Force, Declination, Vertical Force and Inclination for each month of the year for the winter and summer half years and for the whole year. The tabulations of V, D and H magnetograms were made at 9 minutes to the full hour of Bombay mean time to correspond to the exact Greenwich full hour.

Table XVI gives for the years 1916 to 1920 the variations of temperature in the H.F. Magnetograph enclosure, while Table XVII gives similar variations in the V. F. Magnetograph enclosure. The very minute variations of temperature in these tables serve to show that the diurnal inequalities given in the preceding tables may be taken practically as compensated for temperature especially as the temperature co-efficients of the two instruments are small (*vide* reference above).

Table XVIII gives the magnitudes of the aperiodic corrections applicable to the all-day diurnal inequalities of Horizontal Force as determined by different processes. Tables XIX and XX give similar figures for the Declination and the Vertical Force inequalities respectively.

In other respects all the above tables require no explanation beyond their titles, the headings of the several columns and the foot-notes.

(*c*) *Tables of seismic disturbances.*

Tables I and II give details of seismic disturbances recorded by the Milne's seismograph during 1916 and 1917 respectively.

Tables III, IV and V give lists of disturbances recorded by the Omori-Ewing seismograph during 1918 to 1920.

9. Notes on instrumental changes and on all irregularities or departures from the routine of observation or reduction during the period 1916 to 1920.

Robinson-Beckley Anemograph.—The external parts were painted on 30th May 1916, 16th June 1917, 27th May 1918, 26th May 1919 and 21st June 1920. The clock was taken to pieces for cleaning on 29th September 1917. The aggregate of all the interruptions of the instrument in the years 1916 to 1920 was $2^d\ 14^h\ 2^m$. One complete day's record, viz., that of 29th November 1920, has been omitted in the preparation of monthly abstract for wind direction on account of the record being faulty due to the spiral pencil having been loose. In all other cases the interruptions were of short duration and were substituted by values obtained from Dines' record by the constant factor determined for the two instruments.

Dines' Anemometer.—The sensibility of the instrument is determined by a weight of 46 grains which produces a displacement of the pen, measuring about two miles on the chart. Whenever this is appreciably affected, the instrument is opened up and cleaned, and the accumulated scum on the float removed. The aggregate of all the interruptions of the instrument for the five years 1916 to 1920 was respectively, $1^d\ 3^h\ 0^m$, $0^d\ 20^h\ 37^m$, $1^d\ 8^h\ 8^m$, $1^d\ 16^h\ 39^m$ and $2^d\ 22^h\ 12^m$. The interruptions were principally due to casual failure of the pen to record the fluctuations, to re-adjustment of the inclination of pen, to the stoppage or cleaning of the clock and to the derangement of the driving apparatus. On a few occasions when the wind velocity was very weak and fell near to zero, the record appeared to be faulty and had to be interpolated. These are included in the above

aggregate and respectively amount to $0^d\ 9^h\ 25^m$, $0^d\ 0^h\ 0^m$, $0^d\ 1^h\ 10^m$, $0^d\ 11^h\ 45^m$ and $0^d\ 9^h\ 52^m$, for the five years. No complete day's record has been omitted in the formation of monthly abstracts. Other short interruptions were made good by interpolation from Robinson-Beckley's record by the constant determined for the two instruments. Short interruptions caused by the regular change of paper every day for both anemometers, if not unusually prolonged, are not included in the above aggregate.

Method of interpolation in Tabulations.—When for any reason the traces furnished by the photographic self-registering instruments are interrupted, and the interruption includes the moments when one or more hourly tabulations should be made, these last are either substituted by the corresponding eye-observations, if the hours should happen to be any of the five regular observation hours, or if special eye-observations were taken for the purpose, or else if no eye-observations are available, they are interpolated. Interpolation is resorted to rarely and only in case of accidents, otherwise, eye-observations are always made, in order to keep the record unbroken. If the interruption lasts for less time than one hour, the interpolation is made on the assumption that the rate of change of the phenomenon from its value at the beginning to that at the end of the interruption was uniform, provided that the parts of the curve immediately preceding and immediately following the gap were, in appearance, continuations of the straight line connecting the extremities of the gap. If the last condition is not satisfied, or if the gap, taking account of points inserted by means of eye-observations, is of greater length than one hour, the interpolation is made between the next preceding and the next following hourly entries, first, by allowing for the known *normal* rate of change of the phenomenon between those hours in the same month, and then by assuming that any additional change, shown by the difference between the values of the phenomenon at the two extreme hours, has grown at a uniform rate. Such interpolated values however are entered in the abstract sheets with enclosing square brackets while inserted eye-observations are shown between parentheses.

Barograph.—No tabulations were obtained for the following hours for the several reasons stated, but eye-observations were available and were adopted for the hours marked within parentheses, in 67 cases out of 98, interpolation being resorted to in the remaining 31 cases :—

(1) Clock taken to pieces for cleaning on 1917 October 1^d (14^h to 17^h).

(2) Stoppage of the clock on 1918 October $13^d\ 11^h$ to 13^h and (14^h), October 23^d (16^h), November $2^d\ 11^h$, (12^h), 15^h and 16^h, and November 28^d (14^h), 15^h and 16^h.

(3) Breakage and repair of the fastener of the cylinder on 1918 October 21^d (10^h to 13^h) and 1919 February 18^d (10^h).

(4) Stoppage of the clock on 1919 February 28^d (17^h) ; April $22^d\ 4^h$, 5^h, (6^h), 7^h, (8^h to 10^h) 11^h, 12^h and (13^h to 15^h) ; July $25^d\ 7^h$ and (8^h).

(5) Washing away of the film on 1919 May 21^d (10^h).

(6) Loss of curve owing to bad light on 1920 April 8^d (14^h) 15^h and (16^h), and June 28^d 3^h and 4^h.

(7) Breakage of the chimney on 1920 June $8^d\ 3^h$ and 4^h.

(8) Washing away of the film on 1920 April $30^d\ 17^h$.

(9) Adjustment of the instrument on 1920 October 18^d (16^h) and (22^h), and ($19^d\ 6^h$ to $20^d\ 23^h$).

(10) Faulty record on 1920 December $23^d\ 9^h$.

Occasional, though rare, failure of bi-hourly stops to act has caused no loss of record.

The aggregate of all the interruptions of the barograph in the years 1916 to 1920 was 4d. 6h. 8m. and the number of hourly tabulations lost was 98 and of these 67 were substituted by eye-observations, and 21 by interpolation. Short interruptions caused by the regular change of photographic paper and by change of lamps, if not unusually prolonged are not included in the above aggregate, nor in the aggregates of interruptions of the thermographs that follow further on.

Thermograph Dry-Bulb.—No tabulations were obtained for the following hours for the several reasons stated, but eye-observations were available and were utilised for the hours marked within parentheses, in all cases, except in 46, when interpolation had to be resorted to :—

(1) Stoppage of the driving clock on 1917 June $29^d\ 1^h$ to 5^h and (6^h).

(2) Adjustment of the clock on 1917 June 29^d (10^h).

(3) Clock taken to pieces for cleaning on 1917 September 28^d (12^h to 17^h).

(4) Stoppage of clock on 1918 March $26^d\ 0^h$, 1^h, (2^h, 4^h and 11^h), and April $14^d\ 12^h$.

(5) Examination of clock on 1918 March 26^d (8^h to 10^h).

(6) Clock taken to pieces for cleaning on 1918 April 16^d (11^h and 12^h).

(7) Curve mixed with pluvirograph record owing to high temperature in 1918 October 22^d 13^h to 17^h.

(8) Loss of curve on 1919 January 11^d 12^h and December 19^d 18^h.

(9) Stoppage of clock on 1919 March 1^d 5^h and (6^h), May 19^d 13^h and (14^h) and 20^d 1^h to 3^h.

(10) Washing away of the film on 1919 May 20^d (16^h).

(11) Oiling of clock on 1919 May 21^d (10^h).

(12) Defect in the lamp on 1920 January 16^d 19^h to 21^h and (22^h); March 9^d 23^h and 10^d 0^h and 1^h; July 10^d 3^h and 4^h; September 7^d 2^h to 5^h; October 7^d 4^h and 5^h and 19^d 5^h.

(13) Inspection of the instrument on 1920 March 18^d (10^h).

(14) Wrong setting of the cylinder on 1920 April 5^d 7^h, (8^h) and 9^h.

(15) Washing away of the film on 1920 April 28^d 17^h.

(16) Lamp extinguished on 1920 June 25^d 2^h and 3^h; September 15^d 2^h to 5^h and 25^d 2^h and 3^h.

(17) Stoppage of clock on 1920 September 6^d (10^h).

Occasional, though rare, failure of the bi-hourly stops to act has caused no appreciably large loss of record.

The aggregate of all the interruptions of the thermograph dry-bulb in the years 1916 to 1920 was 2^d 19^h 50^m, and the number of hourly tabulations lost was 70, and of these 24 were substituted by eye-observations, leaving 46 to be interpolated.

Thermograph Wet-Bulb.—No tabulations were obtained for the following hours for the several reasons stated, but eye-observations were available and were adopted for the hours marked within parentheses, in all cases except in 39 when interpolation had to be resorted to :—

(1) Loss of curve owing to low temperature on 1916 February 7^d 0^h to 2^h and (3^h to 9^h), February 10^d (6^h) and March 1^d (6^h).

(2) Washing away of the film on 1916 July 8^d (8^h).

(3) Stoppage of the driving clock on 1917 June 29^d 1^h to 5^h and (6^h).

(4) Adjustment of clock on 1917 June 29^d (10^h).

(5) Clock taken to pieces for cleaning on 1917 September 28^d (12^h to 17^h).

(6) Loss of curve owing to defect in the lamp on 1917 December 30^d 12^h, 13^h, (14^h), 15^h, (16^h), and 17^h to 19^h.

(7) Loss of curve owing to low temperature on 1918 January 25^d 2^h, 3^h, and (4^h to 9^h), and December 16^d 5^h and 17^d (6^h).

(8) Stoppage of clock on 1918 March 26^d 0^h, 1^h and (2^h, 4^h and 11^h) and April 14^d 12^h.

(9) Examination of clock on 1918 March 26^d (8^h to 10^h).

(10) Clock taken to pieces for cleaning on 1918 April 16^d (11^h and 12^h).

(11) Loss of curve owing to defect in the lamp on 1918 September 7^d 4^h, 5^h and (6^h).

(12) Stoppage of clock on 1919 March 1^d 5^h and (6^h), May 19^d 13^h and (14^h) and 20^d 1^h to 3^h.

(13) Oiling of clock on 1919 May 21^d (10^h).

(14) Loss of curve owing to defect in the lamp on 1919 September 8^d 18^h.

(15) Inspection of the instrument on 1920 March 18^d (10^h).

(16) Loss of curve owing to wrong setting of the cylinder on 1920 April 5^d 7^h, (8^h) and 9^h.

(17) Loss of curve owing to defect in the lamp on 1920 April 21^d 4^h and 5^h.

(18) Stoppage of clock on 1920 September 6^d (10^h).

(19) Loss of curve owing to low temperature on 1920 December 4^d 23^h to 5^d 5^h.

Occasional, though rare, failure of the bi-hourly stops to act has caused no appreciably large loss of record.

The aggregate of all the interruptions of the thermograph wet-bulb in the years 1916 to 1920 was 3^d 22^h 27^m, due to the causes mentioned above and to the short intervals of time occupied in cleaning and renewing the muslin covering of the bulb and the bundle of threads connecting it with the supply of water. The total number of hourly tabulations lost was 81 and of these 42 were substituted by eye-observations, leaving 39 to be interpolated.

Self-registering Rain-Gauge.—No tabulations were obtained for the following hours for the several reasons stated :—

(1) Faulty record on 1918 March 12^d 21^h and 22^h as the syphon did not work.

(2) Faulty record on 1918 March 22^d 14^h due to obstruction in the receiving tube.

(3) Faulty record on 1918 May 25^d, 27^d and 28^d due to the instrument not being in proper adjustment.

(4) Faulty record due probably to leakage on 1920 January 6^d.

In all cases eye-observations of Newman's rain-gauge were made use of to fill up the gaps and to obtain the daily total rainfall.

Horizontal Force magnetograph.—The following statement shows the principal cases in which irregularities of procedure have been rendered necessary in the hourly tabulations by extraneous disturbing influences or by imperfections in the working or management of the instruments :—

(1) Clock taken to pieces for cleaning on 1916 May 23^d 11^h 10^m to 15^h 9^m. Tabulations from 12^h to 15^h substituted by eye-observations.

(2) Stoppage of the clock from 1916 December 18^d 22^h 30^m to 19^d 5^h 41^m. Tabulations from 18^d 23^h to 19^d 5^h interpolated.

(3) Loss of curve from 1916 December 25^d 5^h 35^m to 6^h 15^m owing to washing away of the film. Tabulation for 6^h substituted by eye-observation.

(4) Loss of curve from 1918 September 29^d 9^h 13^m to 58^m. Tabulation for 10^h substituted by eye-observation.

(5) Magnetic storm carried the curve out of the field of paper from 1919 August 11^d 14^h 48^m to 15^h 15^m. Tabulation for 15^h interpolated.

(6) Clock taken to pieces for cleaning on 1920 March 7^d 11^h 37^m to 15^h 48^m. Tabulation for 12^h substituted by eye-observation and those for 13^h to 15^h interpolated.

(7) Magnetic storm carried the curve out of the field of paper from 1920 March 22^d 19^h 17^m to 21^h 38^m. Tabulations for 20^h and 21^h interpolated.

Occasional, though rare, failure of the hourly stops to act has caused no appreciably large loss of record.

The aggregate of all the interruptions of the Horizontal Force Magnetograph in the years 1916 to 1920 was 12^h 7^m, 6^h 48^m, 1^h 38^m, 0^h 32^m and 7^h 21^m respectively. The total number of hourly tabulations lost during these years was 20 out of which only 7 were substituted by eye observation and 13 were interpolated.

Declination Magnetograph.—The following statement shows the principal cases in which irregularities of procedure have been rendered necessary in the hourly tabulations by extraneous disturbing influences or by imperfections in the working or the management of the instruments :—

(1) Clock taken to pieces for cleaning on 1916 May 23^d 11^h 10^m to 15^h 9^m. Tabulations for 12^h to 15^h substituted by eye observations.

(2) Loss of curve from 1916 May 30^d 9^h 20^m to 9^h 54^m and from 14^h 10^m to 22^h 13^m owing to the stoppage of the cylinder. The whole day is rejected for taking the monthly average.

(3) Lamp extinguished from 1916 October 14^d 10^h 16^m to 11^h 14^m. Tabulation for 11^h interpolated.

(4) Stoppage of the clock from 1916 December 18^d 22^h 30^m to 19^d 5^h 37^m. Tabulations from 23^h to 5^h interpolated.

(5) A shift in the zero line occurred on 1916 December 27^d 9^h 11^m by about 1^{mm}. As this is at the beginning of the day no correction is applied to make the day comparable.

(6) Loss of curve due to the stoppage of cylinder from 1917 July 26^d 9^h 7^m to 10^h 5^m. Tabulation for 10^h substituted by eye observation.

(7) Loss of zero line from 1918 January 7^d 15^h 53^m to 21^h 56^m. Tabulation done by levelling the paper between these two points.

(8) Loss of curve due to defect in the lamp from 1918 March 9^d 22^h 27^m to 23^h 0^m. Tabulation for 23^h interpolated.

(9) Loss of curve from 1918 September 29^d 9^h 13^m to 58^m, the clock being under repairs. Tabulation for 10^h substituted by eye observation.

(10) Tabulations from 1919 August 11^d 20^h 35^m to 12^d 6^h 15^m corrected for the effect of the deflector magnet which was put upon the H. F. Magnetograph to secure the curve at the time of the great magnetic disturbance on that day.

(11) Clock taken to pieces for cleaning from 1920 March 7^d 11^h 37^m to 15^h 48^m. Tabulation for 12^h substituted by eye observation and those from 13^h to 15^h interpolated.

(12) Tabulations from 1920 March 22^d 21^h 38^m to 24^d 1^h 47^m corrected for the effect of the deflector magnet which was put upon the H. F. Magnetograph to secure the curve at the time of the magnetic disturbance on that date.

Occasional, though rare, failure of the hourly stops to act has caused no appreciably large loss of record.

The aggregate of all the interruptions of the Declination Magnetograph record in the years 1916 to 1920, was 20^h 41^m, 1^h 40^m, 3^h 28^m, 0^d 0^h 0^m, and 4^h 45^m respectively. The total number of hourly tabulations lost during these years was 28 out of which 7 were substituted by eye observations and 12 were interpolated. One whole day was rejected as for taking monthly average as the loss of curve was considerable on that day.

A shift in the base line value of the Declination Magnetograph occurred on the 27th December 1916.

Vertical Force Magnetograph.—The following statement shows the principal cases in which irregularities of procedure have been rendered necessary in the hourly tabulations by extraneous disturbing influences or by imperfections in the working or the management of the instruments :—

(1) Loss of curve from 1916 April 28^d 9^h 21^m to 10^h 0^m. Tabulation for 10^h substituted by eye observation.

(2) Clock cleaned from 1916 May 24^d 10^h 32^m to 13^h 7^m. Tabulations from 11^h to 13^h substituted by eye readings.

(3) Curve lost due to defect in the lamp from 1916 November 22^d 9^h 54^m to 23^d 9^h 11^m. The day was rejected for the monthly averages.

(4) Adjustment of the instrument from 1917 January 20^d 21^h 58^m to 22^h 3^m. Tabulations from 23^h to 9^h corrected for a dislocation of $+ \cdot 020$ cm. to make the day comparable.

(5) Curve lost due to defect in the lamp from 1917 April 28^d 8^h 25^m to 9^h 13^m. Tabulation for 9^h interpolated.

(6) Adjustment of the instrument from 1917 May 20^d 10^h 59^m to 11^h 40^m. As the record after the adjustment was abnormally disturbed for a considerable interval the whole day is rejected for the monthly averages.

(7) Magnet lifted and lowered between 1918 June 27^d 9^h 55^m and 10^h 1^m. Tabulation for 10^h corrected for a dislocation of $+ \cdot 027$ cm. to make the day comparable.

(8) Curve lost from 1918 August 27^d 6^h 35^m to 7^h 17^m due to the displacement of film. Tabulation for 7^h interpolated.

(9) Adjustment of the instrument from 1918 November 10^d 10^h 0^m to 11^h 10^m. As the record after the adjustment was abnormally disturbed for a considerable interval the whole day is rejected for taking the monthly average.

(10) Curve lost from 1918 November 12^d 9^h 14^m to 14^d 9^h 3^m due to washing away of the film. Both the days are rejected for taking the monthly averages.

(11) Loss of zero line from 1919 January 22^d 17^h to 23^d 5^h. Tabulations from 17^h to 5^h made by using the zero line of previous day on the sheet after applying a correction derived from a comparison with the other tabulation of the day.

(12) Curve film is washed away at several places from 1919 March 27^d 0^h to 6^h. Tabulation for 5^h only is lost and supplied by interpolation.

(13) Lamp extinguished from 1919 August 9^d 22^h 3^m to 10^d 4^h 55^h. Tabulations from 23^h to 5^h interpolated.

(14) Adjustment of the instrument from 1920 March 3^d 20^h 18^m to 21^h 20^m. As the record after the adjustment was abnormally disturbed for a considerable interval the whole day is rejected for taking the monthly averages.

(15) Adjustment of instrument from 1920 March 6^d 12^h 48^m to 15^h 48^m. The whole day is rejected for taking monthly averages.

Occasional, though rare, failure of the hourly stops to act has caused no appreciable large loss of record.

The aggregate of all the interruptions of the Vertical Force Magnetograph in the year 1916 to 1920 was 1^d 3^h 3^m, 1^h 34^m, 2^d 5^h 56^m, 6^h 57^m and 4^h 59^m, respectively. The total number of tabulations lost during these years was *89* out of which only *4* were substituted by eye readings, *10* were interpolated and *3* whole days were rejected. Four more days had also to be rejected as the record on these days was abnormally disturbed for a considerable interval immediately following an adjustment of the instrument.

The following is a complete list of dislocations which have been noted to have occurred on the Vertical Force Magnetograph curves. Whenever a dislocation has occurred in the middle of the day as reckoned from 10^h to 9^h of the following day the tabulations of the hours immediately preceding or following the time of the dislocations have been corrected by the amounts determined from the measurements on the curves to make the whole day comparable throughout. This secures an unvitiated diurnal inequality. Such corrections have also been applied whenever the tabulation ordinates had to be made comparable as in the case of the determination of absolute values and the derivation of quiet day diurnal inequalities. The times of occurrence of these dislocations together with the amounts (in cms.) by which the curves have been shifted are as detailed below :—

1917 January 20^d 21^h 58^m (·020)

1918 June 27^d 9^h 55^m (·027).

COLABA OBSERVATORY,
the 9th December 1924.

S. K. BANERJI,
Meteorologist, Bombay.

TABLES OF RESULTS

DERIVED FROM

THE CONTINUOUS REGISTRATIONS OF AUTOMATIC METEOROLOGICAL INSTRUMENTS

AND FROM

ABSOLUTE METEOROLOGICAL OBSERVATIONS

1916—1920.

Barometric Pressure, 1916.

TABLE Ia.—*Daily and monthly means.*
Height of the Barometer above mean sea-level = 37 feet.

1916 Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
1	29·963	29·893	29·909	29·791	29·798	29·717	29·747	29·603	29·752	29·765	29·647	29·881
2	·972	·877	·857	·773	·770	·686	·734	·543	·730	·769	·650	·862
3	·960	·896	·853	·788	·735	·596	·715	·578	·701	·755	·766	·888
4	·956	·950	·846	·808	·737	·557	·689	·676	·673	·781	·837	·899
5	·959	·946	·844	·838	·772	·526	·670	·712	·673	·814	·821	·885
6	·939	·989	·833	·851	·816	·470	·657	·661	·681	·825	·777	·868
7	·927	·923	·849	·864	·863	·474	·692	·647	·681	·820	·813	·884
8	·942	·834	·842	·873	·850	·521	·671	·733	·669	·858	·852	·932
9	·991	·859	·823	·837	·811	·518	·625	·781	·651	·882	·869	·943
10	30·000	·900	·845	·833	·838	·488	·686	·764	·631	·883	·883	·900
11	·015	·897	·831	·779	·808	·510	·697	·727	·612	·862	·866	·916
12	·014	·919	·820	·795	·788	·547	·628	·692	·577	·833	·898	·908
13	·015	·952	·855	·821	·772	·532	·627	·705	·622	·819	·946	·912
14	·023	·941	·862	·829	·749	·542	·720	·663	·690	·827	·980	·945
15	·047	·881	·854	·771	·702	·589	·779	·603	·709	·800	·959	·955
16	·021	·901	·841	·816	·745	·613	·730	·641	·724	·770	·905	·940
17	29·958	·937	·872	·787	·774	·561	·668	·691	·708	·718	·883	·944
18	·944	·897	·895	·764	·761	·527	·653	·762	·696	·690	·926	·911
19	·928	·870	·872	·780	·683	·565	·646	·763	·656	·685	·904	·887
20	·924	·876	·837	·795	·679	·576	·609	·735	·654	·706	·943	·875
21	·917	·894	·827	·770	·647	·566	·599	·707	·668	·754	·898	·904
22	·931	·885	·825	·796	·589	·549	·623	·694	·705	·787	·872	·915
23	·975	·907	·808	·783	·595	·558	·661	·714	·739	·758	·815	·911
24	·968	·888	·824	·765	·664	·589	·653	·747	·727	·757	·753	·913
25	·948	·897	·846	·765	·711	·674	·609	·768	·702	·745	·779	·913
26	·946	·904	·829	·812	·740	·714	·613	·760	·687	·756	·837	·883
27	·949	·871	·915	·818	·767	·726	·624	·755	·734	·776	·862	·867
28	·922	·895	·898	·816	·743	·692	·613	·727	·745	·747	·882	·881
29	·933	·925	·841	·774	·694	·711	·575	·743	·748	·770	·893	·912
30	·970		·806	·764	·668	·755	·582	·774	·763	·800	·886	·943
31	·943		·805		·686		·625	·763		·745		·948
Monthly Mean.	29·965	29·904	29·847	29·802	29·740	29·588	29·659	29·704	29·690	29·782	29·856	29·908
Annual Variation.	+·178	+·117	+·060	+·015	−·047	−·199	−·128	−·083	−·097	−·005	+·069	+·121

Annual mean = ... In. 29·787.

TABLE Ib.—*Mean diurnal inequality for each month of the year and for the whole year.*

Unity = 0·001 inch.

1916 Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November	December	Year.
h. m.													
0 7	+ 4	+ 7	+10	+ 5	− 1	+ 6	+13	+ 9	+ 7	+ 8	− 3	− 1	+ 5
1 7	− 7	− 7	− 8	− 9	−17	−10	− 1	− 7	− 6	− 8	−15	−10	− 9
2 7	−22	−23	−21	−19	−29	−23	−14	−22	−20	−21	−26	−21	−22
3 7	−30	−35	−29	−24	−30	−28	−22	−29	−28	−23	−31	−26	−28
4 7	−27	−32	−26	−19	−24	−29	−24	−29	−25	−20	−28	−23	−25
5 7	−18	−23	−14	− 5	−11	−22	−19	−22	−13	− 9	−15	−11	−15
6 7	− 1	− 3	+ 6	+14	+ 9	− 3	− 3	−11	− 1	+ 9	+ 7	+ 5	+ 3
7 7	+22	+21	+28	+35	+31	+14	+13	+ 7	+19	+29	+28	+29	+23
8 7	+50	+46	+50	+56	+48	+25	+26	+22	+38	+47	+49	+53	+42
9 7	+69	+64	+63	+62	+56	+34	+34	+35	+50	+58	+63	+66	+54
10 7	+68	+69	+62	+60	+55	+35	+35	+36	+50	+54	+57	+60	+53
11 7	+48	+53	+46	+47	+45	+29	+32	+33	+39	+36	+35	+40	+40
12 7	+15	+23	+19	+25	+28	+18	+19	+22	+17	+ 7	+ 5	+ 8	+17
13 7	−18	− 6	− 9	− 6	+ 4	0	+ 4	+ 6	−10	−19	−23	−22	− 8
14 7	−43	−34	−36	−31	−19	−16	−16	−13	−34	−44	−42	−43	−31
15 7	−54	−50	−53	−52	−39	−29	−32	−27	−49	−57	−51	−50	−45
16 7	−52	−52	−57	−60	−48	−35	−41	−36	−52	−55	−46	−45	−48
17 7	−42	−44	−50	−54	−48	−31	−39	−31	−44	−41	−36	−36	−41
18 7	−28	−32	−37	−42	−37	−20	−28	−21	−27	−23	−20	−22	−28
19 7	− 9	−14	−19	−26	−22	− 5	−10	− 6	− 9	− 3	+ 3	− 3	−10
20 7	+10	+ 7	+ 4	− 6	− 4	+ 9	+ 6	+12	+12	+16	+20	+12	+ 8
21 7	+21	+19	+20	+14	+12	+22	+20	+24	+27	+26	+27	+21	+21
22 7	+21	+24	+24	+22	+20	+28	+27	+30	+30	+21	+27	+19	+24
23 7	+12	+19	+18	+16	+15	+22	+22	+26	+20	+14	+17	+ 9	+17
Range.	123	121	120	122	104	70	76	72	102	115	114	116	102

Temperature of the Air, 1916.

TABLE IIa.—*Daily and monthly means.*

1916 Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	°	°	°	°	°	°	°	°	°	°	°	°
1 ..	74·6	75·4	78·4	82·0	83·8	84·5	84·2	**78·1**	82·5	80·9	**81·4**	**80·2**
2 ..	73·8	74·1	81·4	82·0	84·9	81·3	84·2	78·5	83·4	80·2	81·3	78·9
3 ..	72·7	73·7	78·8	**81·2**	84·2	84·8	**84·3**	78·3	**83·5**	80·6	79·4	78·9
4 ..	**72·3**	73·1	79·3	81·8	83·2	83·1	83·8	79·0	83·0	79·4	79·7	79·8
5 ..	74.1	71·0	**78·0**	82·3	**82·8**	82·2	81·3	80·9	80·8	80·4	80·7	79·3
6 ..	74.7	**67·0**	79·2	83·6	83·0	84·1	80·8	80·7	80·2	80·3	80·6	78·1
7 ..	73.1	68·1	79·1	84·0	83·3	81·8	82·1	79·8	82·1	80·1	80·7	78·2
8 ..	72.4	72·6	78·3	82·0	83·6	82·9	82·4	80·7	81·4	79·9	79·7	77·6
9 ..	74.1	71·4	79·0	81·8	83·8	**79·2**	79·4	81·0	79·1	80·6	81·1	77·3
10 ..	76.8	70·9	79·6	82·9	83·6	79·8	78·7	81·6	79·2	80·7	79·8	76·5
11 ..	77.9	72·7	79·7	83·6	83·6	84·3	79·1	82·1	78·9	80·5	80·2	76·3
12 ..	**78.2**	74·4	80·0	84·0	83·7	**85·0**	79·7	81·7	79·4	81·2	79·6	76·6
13 ..	77.6	73·9	80·6	83·6	83·6	84·5	**77·6**	81·6	79·0	81·4	80·1	77·3
14 ..	77.6	73·0	81·2	**85·6**	83·8	84·5	79·0	80·9	80·7	81·3	81·0	77·1
15 ..	76.6	73·0	80·9	85·3	84·3	84·0	79·6	79·8	80·7	**79·3**	81·3	75·4
16 ..	76.5	72·4	81·5	82·8	84·8	82·8	81·5	80·8	79·5	81·6	81·1	75·5
17 ..	75.5	71·6	82·1	82·0	84·5	82·0	81·0	80·5	78·7	**83·5**	80·4	74·4
18 ..	75.5	71·7	**82·3**	82·9	84·8	81·8	80·3	81·1	78·6	83·5	80·7	73·5
19 ..	75.7	73·7	79·4	84·0	84·4	81·0	81·4	81·5	80·7	83·2	81·3	73·7
20 ..	75.3	73·9	79·0	82·2	85·7	79·3	82·6	81·5	**78·4**	82·1	80·2	74·6
21 ..	74·9	73·1	79·6	81·9	85·4	81·2	83·4	81·2	79·7	81·2	79·3	75·4
22 ..	74·9	73·6	80·7	82·2	86·4	83·5	83·5	81·4	80·5	81·1	78·8	76·2
23 ..	74·5	74·4	81·9	82·4	86·8	84·5	83·1	82·3	79·8	79·4	**78·3**	77·1
24 ..	74·6	75·2	81·9	83·5	87·2	84·2	83·7	81·7	80·1	81·3	79·6	76·6
25 ..	74·7	**75·8**	82·0	83·6	86·5	84·4	83·8	**82·5**	81·4	82·2	79·5	74·6
26 ..	74·5	75·5	81·6	82·6	87·2	83·9	83·6	82·3	79·6	79·9	79·5	73·4
27 ..	75·2	75·6	81·7	82·0	**87·4**	84·4	81·1	82·4	80·5	79·6	78·9	73·4
28 ..	76·0	75·4	81·1	81·7	87·3	83·9	78·1	80·9	80·2	79·3	79·7	73·5
29 ..	76·8	75·7	81·0	82·3	87·1	82·0	79·0	81·8	79·7	80·9	79·8	73·7
30 ..	76·6		80·5	83·4	87·0	83·8	79·5	82·1	80·8	81·2	81·0	72·5
31 ..	76·5		80·3		87·1		80·1	82·2		79·8		**71·7**
Monthly Mean.	75·3	**73·2**	80·3	82·8	**85·0**	83·0	81·4	81·0	80·4	80·9	80·2	76·0
Annual Variation ..	−4·7	−6·8	+0·3	+2·8	+5·0	+3·0	+1·4	+1·0	+0·4	+0·9	+0·2	−4·0

Annual mean .. .. °80·0

TABLE IIb.—*Mean diurnal inequality for each month of the year and for the whole year.*

1916 Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
h. m.	°	°	°	°	°	°	°	°	°	°	°	°	°
0 2	−2·7	−1·9	−2·1	−2·1	−2·2	−0·9	−0·8	−0·8	−1·1	−1·7	−2·2	−2·3	−1·7
1 2	−3·0	−2·4	−2·5	−2·5	−2·5	−1·0	−1·0	−0·9	−1·1	−2·0	−2·6	−2·8	−2·0
2 2	−3·6	−2·7	−2·9	−2·8	−2·7	−1·1	−1·1	−1·0	−1·2	−2·3	−2·9	−3·1	−2·3
3 2	−3·9	−3·2	−3·2	−3·2	−3·0	−1·4	−1·2	−1·2	−1·4	−2·3	−3·1	−3·6	−2·6
4 2	−4·1	−3·5	−3·6	−3·6	−3·6	−3·1	−1·5	−1·3	−1·2	−1·6	−2·4	−3·3	−2·8
5 2	−4·6	−3·7	−4·1	−3·9	−3·4	−1·6	−1·6	−1·2	−1·8	−2·6	−3·5	−4·1	−3·0
6 2	−4·9	−4·1	−4·3	−4·2	−3·3	−1·4	−1·6	−1·2	−2·0	−2·7	−3·8	−4·5	−3·2
7 2	−5·1	−4·5	−3·9	−2·9	−2·2	−1·0	−1·3	−0·9	−1·8	−2·3	−3·4	−4·4	−2·8
8 2	−3·6	−2·9	−1·9	−1·1	−0·7	−0·5	−0·8	−0·3	−1·1	−1·4	−2·3	−3·2	−1·6
9 2	−1·8	−1·0	−0·3	+0·7	+0·7	+0·5	−0·1	+0·2	−0·3	−0·5	−0·9	−1·6	−0·4
10 2	+0·4	+1·4	+1·8	+2·3	+1·9	+1·2	+0·6	+0·9	+0·3	+0·9	+1·0	+0·6	+1·1
11 2	+2·7	+2·9	+3·4	+3·3	+3·0	+1·2	+0·9	+1·3	+1·3	+2·0	+2·6	+1·7	+2·3
12 2	+4·6	+4·1	+4·5	+4·4	+3·9	+1·3	+1·5	+1·8	+1·8	+2·8	+3·8	+4·5	+3·2
13 2	+5·8	+4·7	+4·9	+4·7	+4·4	+1·9	+1·8	+1·5	+2·3	+3·2	+4·5	+5·5	+3·8
14 2	+6·7	+5·3	+5·0	+4·8	+4·7	+2·0	+1·8	+1·6	+2·7	+3·6	+5·0	+5·9	+4·1
15 2	+6·6	+4·9	+4·8	+4·7	+4·5	+1·8	+1·8	+1·6	+2·5	+3·6	+4·6	+5·8	+3·9
16 2	+5·6	+4·3	+4·2	+3·8	+3·5	+1·3	+1·3	+1·6	+2·3	+3·1	+3·8	+5·1	+3·3
17 2	+3·7	+2·8	+3·1	+2·6	+2·3	+0·7	+0·9	+0·9	+1·4	+2·0	+2·2	+3·4	+2·2
18 2	+2·0	+1·0	+1·3	+0·8	+0·5	+0·1	+0·4	+0·3	+0·6	+0·8	+1·2	+2·0	+ ·9
19 2	+1·2	+0·3	+0·2	−0·1	−0·6	−0·3	−0·1	−0·2	+0·1	+0·2	+0·9	+1·5	+0·3
20 2	+0·7	0	−0·3	−0·5	−1·0	−0·4	−0·1	−0·4	0	−0·2	+0·5	+0·8	−0·1
21 2	0	−0·4	−0·9	−1·0	−1·3	−0·4	−0·1	−0·7	−0·4	−0·6	−0·3	−0·2	−0·5
22 2	−1·0	−0·9	−1·3	−1·5	−1·6	−0·5	−0·3	−0·6	−0·6	−0·9	−1·0	−1·9	−0·9
23 2	−1·8	−1·4	−1·6	−1·9	−1·9	−0·9	−0·4	−0·6	−0·9	−1·3	−1·8	−2·1	−1·4
Range ..	11·8	9·8	9·3	9·0	8·1	3·6	3·4	3·0	4·7	6·3	8·8	10·4	7·3

TABLE IIc.—*Showing the maximum temperature of the air on each day during the year* 1916.

1916 Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	°	°	°	°	°	°	°	°	°	°	°	°
1 ..	82·3	82·1	88·3	89·3	89·7	89·1	88·4	80·8	88·9	86·4	87·9	86·4
2 ..	82·1	80·9	94·1	89·9	92·4	83·3	88·7	80·9	89·8	86·4	87·0	85·1
3 ..	81·8	81·2	86·4	88·1	90·6	89·6	88·5	81·1	89·6	86·6	85·3	86·4
4 ..	81·4	80·0	87·5	89·5	89·8	88·3	87·5	83·3	89·3	83·2	85·2	89·2
5 ..	84·4	78·9	86·1	89·3	89·3	87·5	87·4	84·1	87·7	86·5	88·1	87·9
6 ..	84·0	73·8	87·8	92·6	89·2	89·9	85·8	81·9	85·1	84·7	87·3	85·9
7 ..	81·4	79·1	85·5	92·6	89·5	86·4	87·1	81·5	87·0	83·9	86·6	86·9
8 ..	80·9	84·9	84·4	89·1	90·2	87·5	86·3	84·1	86·1	85·0	85·3	85·8
9 ..	83·2	79·5	85·7	89·1	91·3	80·2	81·2	85·3	81·9	86·3	86·4	85·6
10 ..	87·5	80·8	85·9	88·1	90·2	81·1	79·8	86·1	82·9	85·8	84·3	84·6
11 ..	87·7	83·1	85·7	91·2	90·2	88·3	79·8	86·3	82·3	87·2	87·1	83·3
12 ..	87·3	81·9	86·4	91·2	90·2	89·5	83·7	85·1	83·9	87·1	87·1	84·5
13 ..	88·7	80·8	87·9	90·4	90·4	89·4	78·9	84·9	81·3	87·7	87·9	85·3
14 ..	88·0	81·5	88·0	92·0	90·2	89·0	82·2	83·0	85·2	89·1	87·8	84·9
15 ..	85·4	81·5	86·1	91·6	90·6	86·8	83·0	81·5	85·3	88·1	88·5	84·5
16 ..	86·6	80·2	88·9	88·8	91·3	87·4	85·7	83·8	84·4	88·7	87·6	82·9
17 ..	84·0	79·8	88·1	88·5	90·8	85·8	82·4	83·6	82·7	89·3	87·3	82·6
18 ..	84·6	82·0	91·0	88·7	91·7	87·1	83·3	85·6	82·1	88·4	86·7	81·9
19 ..	83·5	82·4	85·6	89·7	90·9	85·5	86·3	86·1	83·1	89·4	88·3	81·1
20 ..	84·0	81·7	87·1	89·1	91·6	82·1	87·2	84·9	80·0	86·6	87·0	82·2
21 ..	83·0	80·2	88·5	88·7	91·3	84·9	88·1	85·1	84·4	85·9	86·9	83·0
22 ..	84·0	81·7	89·0	88·5	92·4	88·1	87·3	85·9	84·6	85·7	85·4	82·9
23 ..	83·4	83·1	89·9	89·9	92·4	88·9	87·6	86·3	83·4	85·1	85·0	83·6
24 ..	84·1	84·1	88·7	90·7	93·2	88·6	87·9	86·2	84·9	86·1	85·5	83·8
25 ..	83·9	83·7	87·6	91·4	92·9	88·9	88·1	86·9	86·1	86·5	84·7	83·0
26 ..	83·3	82·7	87·1	89·5	93·2	88·6	88·6	86·3	82·7	84·2	84·9	82·1
27 ..	83·1	82·3	89·0	90·0	93·5	89·1	85·5	87·4	85·1	83·1	84·2	82·6
28 ..	84·2	82·4	88·4	88·7	92·9	88·3	82·5	86·5	85·5	82·9	86·1	81·7
29 ..	84·7	83·4	89·0	89·1	93·0	85·7	83·1	86·6	84·7	85·5	86·4	81·8
30 ..	83·8		87·5	90·3	93·1	88·1	82·5	87·5	85·3	86·5	87·6	80·3
31 ..	83·4		87·0		93·2		81·9	87·7		84·8		80·7
Monthly Mean.	84·2	81·4	87·7	89·9	91·3	87·1	85·0	84·7	84·8	86·2	86·5	84·0

Annual mean .. .. .. 86·1
The greatest maximum temperature recorded during the year (that of 2nd March) was .. .. 94·1

TABLE IId.—*Showing the minimum temperature of the air on each day during the year* 1916.

1916 Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	°	°	°	°	°	°	°	°	°	°	°	°
1 ..	68·5	71·7	69·3	75·6	79·5	81·6	81·5	76·6	78·7	77·2	76·4	74·4
2 ..	67·7	69·5	73·1	77·0	78·2	76·4	81·4	76·0	80·0	76·4	76·9	73·1
3 ..	64·5	69·3	72·0	77·4	78·5	81·2	81·4	77·4	80·4	77·4	75·2	72·8
4 ..	64·7	70·0	71·3	76·5	78·5	79·3	81·8	76·6	80·4	76·1	75·2	74·1
5 ..	67·5	67·3	73·2	78·0	78·0	79·2	79·2	77·2	78·4	77·0	75·4	74·0
6 ..	69·7	63·8	72·5	77·4	77·5	78·4	77·8	78·8	75·5	77·0	74·4	73·5
7 ..	67·3	59·2	74·5	78·4	78·8	79·0	78·6	77·8	79·1	77·2	76·4	73·1
8 ..	66·1	65·3	74·0	77·2	80·0	79·2	80·2	77·3	78·4	77·6	75·0	72·5
9 ..	66·9	66·3	74·0	75·9	80·4	76·8	77·4	79·2	77·0	76·8	77·6	72·1
10 ..	70·3	63·3	75·0	77·6	80·4	77·2	77·4	78·5	76·6	77·2	75·5	71·7
11 ..	71·3	64·3	75·5	77·6	79·4	76·6	77·8	79·5	77·4	75·8	75·4	71·7
12 ..	72·7	69·1	75·4	77·4	79·2	82·0	77·5	77·6	77·4	77·0	74·8	71·1
13 ..	71·4	70·5	76·2	79·0	80·2	80·8	75·5	77·9	77·7	77·4	74·1	72·1
14 ..	70·8	67·1	77·0	80·0	79·8	80·6	75·4	78·5	77·4	77·8	76·2	71·5
15 ..	72·3	66·3	77·5	80·6	80·5	81·8	76·5	76·5	77·5	74·9	76·6	70·6
16 ..	71·6	67·7	76·5	78·6	81·0	77·8	78·3	79·0	76·9	74·8	76·5	70·3
17 ..	68·5	66·4	77·5	77·0	80·4	79·2	79·4	77·8	77·0	78·2	76·6	68·3
18 ..	69·6	62·3	76·5	77·8	80·4	78·4	76·8	77·2	76·2	80·4	76·2	66·3
19 ..	69·5	67·6	75·8	80·8	80·4	77·2	77·9	77·5	77·5	78·3	76·8	67·1
20 ..	68·4	70·3	73·3	76·6	81·6	78·4	79·8	79·3	76·2	79·4	75·5	69·3
21 ..	70·3	69·5	73·7	77·6	81·9	76·2	80·5	78·9	76·0	78·2	73·7	70·0
22 ..	70·0	69·0	74·5	76·8	83·0	79·8	81·3	79·0	78·4	78·1	73·4	72·0
23 ..	69·2	69·3	75·0	77·9	83·4	81·0	78·7	78·5	76·4	75·6	73·7	72·4
24 ..	69·0	68·5	76·2	78·9	83·8	81·6	81·3	78·8	76·7	77·2	74·0	72·5
25 ..	68·5	70·0	77·0	78·6	83·8	81·8	80·8	79·5	78·0	78·8	77·1	69·5
26 ..	67·3	70·7	77·2	79·0	83·5	79·8	81·2	79·6	78·0	78·5	77·2	68·8
27 ..	68·9	72·8	76·4	77·6	83·8	81·5	80·2	79·4	76·4	78·4	75·9	66·5
28 ..	69·5	71·3	75·5	76·6	83·8	81·6	76·2	79·5	77·8	76·2	75·2	67·8
29 ..	71·1	70·5	75·4	77·9	83·8	77·7	75·6	79·2	76·4	77·2	74·4	68·1
30 ..	71·6		76·4	79·1	84·0	81.2	76·7	78·2	77·1	78·2	76·1	68·6
31 ..	72·3		74·9		84·2		77·4	78·0		74·9		64·5
Monthly Mean.	69·3	67·9	74·9	77·9	81·0	79·4	78·8	78·2	77·6	77·3	75·6	70·6

Annual mean .. .. .. 75·7
The least minimum temperature recorded during the year (that of 7th February) was .. .. 59·2

TABLE IIIa.—*Daily and monthly means.*

TABLE IIIb.—*Mean diurnal inequality for each month of the year and for the whole year.*

Unity = 0·001 inch.

1916 Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
1 ..	0·606	0·679	0·581	0·750	0·895	0·965	0·936	0·896	0·912	0·883	0·867	0.709
2 ..	·571	·622	·530	·751	·848	·929	·930	·921	·924	·861	·782	.704
3 ..	·481	·576	·624	·795	·844	1·005	·939	·916	·946	·855	·785	.692
4 ..	·550	·581	·559	·782	·869	0·976	·956	·917	·940	·860	·792	.746
5 ..	·640	·453	·683	·839	·867	·952	·921	·945	·950	·829	·797	.717
6 ..	·668	·365	·744	·777	·835	·975	·922	·931	·900	·853	·780	.722
7 ..	·617	·347	·837	·796	·821	·989	·933	·916	·932	·823	·847	.688
8 ..	·579	·440	·819	·811	·823	·983	·955	·920	·948	·836	·877	.689
9 ..	·585	·467	·844	·832	·852	·926	·912	·915	·918	·858	·887	.692
10 ..	·575	·386	·843	·852	·882	·936	·897	·911	·926	·850	·778	.629
11 ..	·647	·513	·860	·808	·883	·977	·916	·898	·921	·870	·757	.650
12 ..	·675	·630	·873	·848	·892	·948	·930	·910	·906	·895	·754	.675
13 ..	·628	·587	·891	·877	·864	·954	·887	·910	·911	·920	·783	.655
14 ..	·638	·519	·900	·861	·839	·959	·896	·907	·917	·938	·820	.622
15 ..	·626	·508	·890	·908	·867	·946	·919	·901	·906	·874	·824	.618
16 ..	·619	·515	·891	·859	·889	·912	·959	·911	·902	·930	·803	.640
17 ..	·580	·495	·907	·864	·918	·917	·947	·924	·903	·948	·830	.596
18 ..	·572	·499	·708	·888	·949	·941	·901	·928	·900	·915	·838	.551
19 ..	·592	·647	·630	·893	·957	·913	·937	·913	·920	·926	·805	.579
20 ..	.595	·653	·714	·776	·970	·905	·950	·898	·899	·934	·754	.662
21 ..	.633	·635	·725	·771	·963	·915	·974	·896	·887	·888	·742	.662
22 ..	.645	·667	·740	·770	·997	·973	·985	·905	·882	·886	·740	.646
23 ..	·532	·698	·758	·843	1·028	·966	·961	·915	·858	·896	·678	.612
24 ..	·550	·626	·813	·889	·025	·953	·985	·909	·851	·945	·663	.554
25 ..	·605	·692	·851	·866	·004	·963	·996	·908	·864	·931	·833	.537
26 ..	·606	·658	·847	·838	0·986	·960	·973	·907	·863	·907	·852	.497
27 ..	·674	·680	·778	·797	·987	·947	·948	·913	·868	·905	·828	.513
28 ..	·689	·654	·750	·798	·998	·932	·902	·900	·853	·911	·842	.538
29 ..	·728	·678	·768	·830	·988	·915	·896	·902	·845	·903	·841	.576
30 ..	·729		·754	·865	·990	·929	·906	·912	·824	·904	·776	.532
31 ..	·744		·800		·972		·919	·907		·802		.484
Monthly Mean.	0·619	0·568	0·771	0·828	0·919	0·949	0·935	0·912	0·899	0·888	0·799	0·625
Annual Variation.	−·190	−·241	−·038	+·019	+·110	+·140	+·126	+·103	+·090	+·079	−·010	−·184

1916 Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
h. m.													
0 2	− 7	+ 2	+ 1	+ 7	− 2	−12	−12	−15	−17	−18	−12	+ 2	− 7
1 2	− 6	− 8	− 3	− 4	−11	−13	−14	−16	−16	−19	− 9	+ 2	−10
2 2	−14	− 9	−16	− 8	−12	−14	−17	−13	−16	−24	−27	− 5	−15
3 2	− 4	−16	−10	−17	−22	−15	−17	−19	−16	−23	−24	−15	−16
4 2	− 6	−15	− 7	−22	−25	−20	−15	−19	−15	−15	−23	−12	−16
5 2	−24	−13	−21	−24	−28	−23	−17	−19	−14	−17	−32	−11	−20
6 2	−30	−18	−29	−27	−20	−17	−16	−15	−10	−22	−27	−16	−21
7 2	−35	−27	−23	−20	−12	− 8	−10	− 6	−11	−15	−21	− 8	−16
8 2	−18	−20	− 9	−20	− 3	− 6	+ 2	+ 7	+ 6	+ 3	−15	− 2	− 6
9 2	−25	−19	−19	−10	+ 1	+14	+13	+17	+18	+ 8	− 8	− 1	− 1
10 2	− 8	− 5	−10	+ 5	+13	+23	+20	+27	+20	+21	0	+ 7	+ 9
11 2	−13	− 4	+ 2	+27	+ 2	+18	+14	+29	+28	+20	+ 5	+ 2	+11
12 2	−27	+ 1	+11	+44	+16	+17	+25	+31	+27	+26	+ 2	−14	+13
13 2	−45	+ 2	+35	+39	+17	+25	+25	+25	+34	+29	+10	−27	+14
14 2	−19	+14	+42	+24	+20	+24	+20	+21	+36	+32	+20	−22	+18
15 2	+23	+26	+30	+ 7	+20	+20	+21	+14	+25	+36	+23	− 8	+20
16 2	+38	+30	+23	+ 1	+22	+ 9	+ 7	+10	+11	+28	+22	+22	+19
17 2	+37	+22	+13	− 6	+15	+ 4	+ 2	− 4	0	+ 9	+24	+16	+11
18 2	+40	+21	+ 6	−22	+ 4	− 3	− 8	− 8	− 5	− 5	+20	+22	+ 5
19 2	+41	+13	+ 3	−12	+ 3	− 7	−10	−11	−22	− 7	+28	+29	+ 4
20 2	+36	+ 9	+ 9	− 1	+11	− 4	− 8	−12	−12	− 8	+28	+37	+ 7
21 2	+25	+ 9	− 4	+10	0	− 3	− 3	−12	−18	−10	+20	+21	+ 3
22 2	+21	+ 3	− 8	+17	+ 6	− 3	− 1	− 9	−12	− 7	0	+ 5	+ 1
23 2	+12	+ 3	− 5	+ 6	− 4	−11	− 1	−11	−15	−15	−15	−15	− 6
Range.	86	57	71	71	50	48	42	50	58	60	60	64	41

	In.
Annual mean	0·809.

TABLE IV*a*.—*Daily and monthly means.*

1916 Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
1 ..	0·254	0·202	0·402	0·347	0·267	0·222	0·238	0·065	0·199	0·173	0·210	0·325
2 ..	·267	·223	·557	·346	·358	·142	·244	·054	·220	·174	·286	·288
3 ..	·330	·258	·366	·274	·332	·195	·239	·051	·201	·192	·222	·299
4 ..	·251	·234	·445	·309	·272	·157	·204	·072	·192	·144	·225	·280
5 ..	·210	·308	·278	·269	·258	·151	·150	·107	·104	·212	·255	·289
6 ..	·196	·297	·260	·381	·298	·198	·130	·115	·134	·178	·270	·245
7 ..	·202	·350	·159	·378	·323	·097	·164	·102	·165	·207	·206	·285
8 ..	·222	·371	·153	·287	·331	·143	·154	·127	·124	·187	·140	·261
9 ..	·263	·304	·149	·258	·311	·074	·092	·143	·078	·191	·177	·250
10 ..	·357	·377	·171	·276	·272	·081	·085	·167	·070	·201	·242	·290
11 ..	·319	·302	·157	·351	·272	·202	·078	·198	·065	·174	·279	·259
12 ..	·299	·226	·153	·324	·268	·256	·085	·172	·097	·171	·263	·245
13 ..	·331	·250	·159	·276	·289	·230	·064	·168	·080	·154	·256	·287
14 ..	·317	·297	·167	·369	·323	·227	·095	·149	·131	·135	·242	·318
15 ..	·295	·308	·168	·310	·314	·222	·092	·118	·142	·133	·247	·270
16 ..	·300	·284	·190	·264	·313	·209	·118	·140	·106	·154	·263	·245
17 ..	·310	·283	·194	·232	·270	·175	·108	·119	·077	·203	·213	·260
18 ..	·320	·285	·401	·239	·251	·148	·132	·137	·079	·235	·214	·279
19 ..	·304	·189	·375	·274	·226	·147	·135	·164	·125	·213	·268	·257
20 ..	·289	·187	·281	·328	·265	·096	·165	·177	·071	·162	·279	·201
21 ..	·237	·180	·291	·321	·260	·154	·168	·168	·130	·176	·264	·221
22 ..	·223	·165	·313	·335	·267	·176	·168	·168	·159	·178	·250	·260
23 ..	·328	·157	·335	·269	·250	·219	·172	·188	·158	·110	·295	·323
24 ..	·313	·254	·279	·261	·268	·221	·171	·175	·176	·125	·354	·366
25 ..	·260	·202	·243	·290	·260	·221	·164	·203	·208	·169	·174	·324
26 ..	·254	·227	·234	·278	·309	·202	·178	·197	·149	·114	·158	·329
27 ..	·204	·208	·307	·301	·316	·235	·114	·195	·173	·106	·161	·317
28 ..	·215	·228	·317	·288	·300	·231	·062	·189	·179	·089	·176	·294
29 ..	·201	·215	·293	·275	·303	·179	·095	·187	·170	·155	·179	·259
30 ..	·189		·290	·281	·294	·232	·102	·187	·230	·163	·282	·270
31 ..	·170		·237		·318		·109	·192		·219		·298
Monthly Mean ..	0·265	0·254	0·269	0·300	0·289	0·181	0·138	0·148	0·140	0·168	0·235	0·281
Annual Variation ..	+·043	+·032	+·047	+·078	+·067	−·041	−·084	−·074	−·082	−·054	+·013	+·059

Annual mean .. .. In. 0·222.

TABLE IV*b*.—*Mean diurnal inequality for each month of the year and for the whole year.*

Unity = 0·001 inch.

1916 Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
h. m.													
0 2	− 74	− 55	− 75	− 88	− 84	− 20	− 17	− 15	− 22	− 39	− 62	− 73	− 52
1 2	− 84	− 58	− 83	− 90	− 86	− 24	− 19	− 18	− 24	− 47	− 77	− 88	− 58
2 2	− 92	− 66	− 84	− 98	− 93	− 28	− 22	− 25	− 27	− 52	− 69	− 90	− 62
3 2	−110	− 70	− 98	−101	− 93	− 36	− 27	− 23	− 32	− 55	− 78	− 93	− 68
4 2	−113	− 79	−114	−107	− 93	− 33	− 31	− 23	− 41	− 64	− 84	−103	− 74
5 2	−108	− 87	−113	−117	−100	− 34	− 37	− 25	− 46	− 71	− 84	−112	− 78
6 2	−110	− 91	−112	−123	−104	− 33	− 38	− 29	− 55	− 68	− 94	−116	− 81
7 2	−109	− 91	−105	− 88	− 74	− 29	− 35	− 26	− 50	− 63	− 93	−121	− 74
8 2	− 87	− 58	− 61	− 24	− 26	− 11	− 28	− 19	− 42	− 51	− 62	− 95	− 47
9 2	− 34	− 11	+ 4	+ 28	+ 23	+ 6	− 14	− 10	− 27	− 25	− 24	− 51	− 11
10 2	+ 13	+ 41	+ 65	+ 74	+ 59	+ 21	+ 1	+ 3	− 12	+ 10	+ 30	+ 5	+ 26
11 2	+ 88	+ 84	+113	+ 93	+113	+ 29	+ 21	+ 15	+ 17	+ 48	+ 84	+ 74	+ 65
12 2	+165	+116	+146	+118	+138	+ 35	+ 30	+ 32	+ 34	+ 71	+130	+150	+ 97
13 2	+226	+133	+139	+137	+158	+ 48	+ 41	+ 28	+ 45	+ 87	+150	+198	+116
14 2	+229	+140	+136	+155	+170	+ 55	+ 48	+ 34	+ 59	+ 97	+156	+208	+124
15 2	+183	+116	+139	+167	+158	+ 52	+ 47	+ 44	+ 64	+ 94	+139	+191	+116
16 2	+132	+ 94	+122	+140	+117	+ 44	+ 41	+ 48	+ 69	+ 82	+110	+135	+ 94
17 2	+ 70	+ 56	+ 90	+ 98	+ 74	+ 24	+ 32	+ 36	+ 49	+ 60	+ 48	+ 82	+ 60
18 2	+ 14	+ 5	+ 32	+ 47	+ 13	+ 7	+ 22	+ 17	+ 25	+ 31	+ 18	+ 33	+ 22
19 2	− 12	− 6	− 1	+ 4	− 28	− 5	+ 8	+ 3	+ 23	+ 12	− 2	+ 8	0
20 2	− 22	− 11	− 24	− 22	− 51	− 11	+ 4	− 4	+ 10	+ 1	− 16	− 18	− 14
21 2	− 32	− 22	− 31	− 53	− 53	− 13	− 2	− 12	+ 4	− 11	− 34	− 33	− 24
22 2	− 55	− 29	− 40	− 78	− 70	− 17	− 11	− 14	− 10	− 25	− 37	− 48	− 36
23 2	− 70	− 44	− 54	− 78	− 71	− 22	− 14	− 13	− 17	− 31	− 48	− 53	− 43
Range.	342	231	260	290	274	91	86	77	124	168	250	329	205

Rainfall, 1916.

TABLE Va.—*Total fall of rain (in inches) as measured by F. Chambers' self-registering gauge, the funnel of which is 28 feet above the ground.*

1916 Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
				In.	In.	In.	In.	In.	In.	In.	In.	In.
1	..	..	..	..	..	0·20	..	4·26	..	0·04	..	..
2	..	..	..	..	..	1·04	..	3·11	..	0·05	..	..
3	..	..	..	..	..	0·01	..	3·01	..	..	..	..
4	..	..	..	..	..	0·48	0·04	0·34	0·20	0·33	..	..
5	..	..	..	0·04	..	0·70	0·67	0·22	1·41	..	..	..
6	..	..	..	..	..	1·69	0·11	0·16	0·01	0·29	..	..
7	..	..	..	..	..	1·15	0·60	0·63	0·02	..	0·67	..
8	..	..	..	..	..	0·08	0·16	0·49	0·61	..	..	..
9	..	..	..	..	..	7·37	3·69	0·22	3·26	..	..	..
10	..	..	..	..	..	1·14	1·51	0·05	0·78	..	..	..
11	..	..	..	..	..	0·04	1·38	0·03	0·42	..	..	..
12	..	..	..	..	..	0·03	1·13	0·24	0·05	..	..	..
13	..	..	..	..	..	0·16	1·85	0·21	0·56	..	..	..
14	..	..	..	..	..	0·09	1·05	0·14	0·20	0·61	..	..
15	..	..	..	..	..	0·05	0·34	1·20	0·15	0·93	..	..
16	..	..	..	..	..	0·42	0·06	0·36	0·94	..	..	..
17	..	..	..	..	..	0·39	0·34	0·38	0·54	..	..	..
18	..	..	..	..	..	1·88	0·03	0·42	1·17	..	..	..
19	..	..	..	..	..	0·19	0·22	0·01	0·11	0·01	..	..
20	..	..	..	..	..	1·99	..	0·20	1·91	0·01	..	..
21	..	..	..	..	..	1·14	0·01	0·10	..	0·01	..	..
22	..	..	..	..	..	0·10	0·03	0·18	0·03	0·33	..	..
23	..	..	..	..	..	0·01	0·57	0·01	0·50	0·92	..	..
24	..	..	..	..	..	0·03	0·03	0·23	0·11	..	..	..
25	..	..	..	..	..	0·26	..	0·01	0·04	..	..	..
26	..	..	..	..	..	0·19	..	0·01	0·15	0·36	..	..
27	..	..	..	..	..	0·02	0·50	0·04	0·59	0·19	..	..
28	..	..	..	..	0·06	0·10	4·97	0·21	..	0·56	..	..
29	..	..	..	..	0·01	1·68	1·29	0·05	0·03	..	..	..
30	..	..	..	..	..	..	1·47	0·09	0·01	..	..	..
31	..	..	..	..	..		2·32	0·02		..		..
Monthly total ..				0·04	0·07	22·63	24·37	16·63	13·80	4·64	0·67	..
Number of rainy days.				1	2	29	25	31	25	14	1	

Total fall of rain in the year .. 82·85 In.
Total number of rainy days in the year .. 128
The greatest daily fall of rain in the year (that of 9th June) was .. 7·37 In.

No rain fell in the months of January, February, March and December, nor on any of the days left blank in the above table.

TABLE Vb.—*Total fall of rain (in inches) as measured by Newman's gauge placed 4½ feet above the ground.*

1916 Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
				In.	In.	In.	In.	In.	In.	In.	In.	In.
1	..	..	..	..	..	0·19	..	4·26	..	0·04	..	..
2	..	..	..	..	..	1·09	..	3·26	..	0·05	..	..
3	..	..	..	..	..	0·02	..	3·07	..	0·00	..	..
4	..	..	..	..	..	0·46	0·05	0·37	0·23	0·34	..	..
5	..	..	..	0·04	..	0·80	0·69	0·24	1·44	..	..	..
6	..	..	..	..	..	1·87	0·13	0·18	0·01	0.31	..	..
7	..	..	..	..	..	1·13	0·62	0·65	0·03	..	0·72	..
8	..	..	..	..	..	0·10	0·16	0·53	0·65	..	..	..
9	..	..	..	..	..	7·60	3·79	0·22	3·59	..	..	..
10	..	..	..	..	..	1·17	1·52	0·05	0·84	..	..	..
11	..	..	..	..	..	0·06	1·42	0·03	0·43	..	..	..
12	..	..	..	..	..	0·03	1·17	0·27	0·05	..	..	..
13	..	..	..	..	..	0·17	1·87	0·23	0·58	..	..	..
14	..	..	..	..	..	0·09	1·10	0·15	0·20	0·63	..	..
15	..	..	..	..	..	0·05	0·38	1·25	0·15	0·92	..	..
16	..	..	..	..	..	0·43	0·08	0·37	0·98	..	..	..
17	..	..	..	..	..	0·41	0·36	0·39	0·57	..	..	..
18	..	..	..	..	..	1·91	0·03	0·45	1·19	..	..	..
19	..	..	..	..	..	0·20	0·24	0·02	0·12	0·01	..	..
20	..	..	..	..	..	2·08	..	0·20	2·02	0·01	..	..
21	..	..	..	..	..	1·20	0·02	0·12	..	0·02	..	..
22	..	..	..	..	..	0·12	0·03	0·20	0·04	0·35	..	..
23	..	..	..	..	..	0·01	0·61	0·01	0·51	0·94	..	..
24	..	..	..	..	..	0·04	0·03	0·23	0·13	..	..	..
25	..	..	..	..	..	0·25	..	0·01	0·04	..	..	..
26	..	..	..	..	..	0·21	..	0·01	0·15	0·38	..	..
27	..	..	..	..	..	0·02	0·54	0·04	0·60	0·20	..	..
28	..	..	..	..	0·06	0·11	5·09	0·22	..	0·59	..	..
29	..	..	..	..	0·01	1·73	1·31	0·06	0·03	..	..	..
30	..	..	..	..	..	0·00	1·49	0·09	0·01	..	..	..
31	..	..	..	..	..		2·37	0·01		..		..
Monthly total .				0·04	0·07	23·55	25·10	17·19	14·59	4·79	0·72	
Number of rainy days.				1	2	29	25	31	25	14	1	

Total fall of rain in the year .. .. .. 86·05 In.
Total number of rainy days in the year 128
The greatest daily fall of rain in the year (that of 9th June) was .. .. .. 7·60 In.

No rain fell in the months of January, February, March and December; nor on any of the days left blank in the above table.

Velocity of Wind, 1916.

Robinson Beckley's Anemograph.

Table VI *a*.—*Mean velocity of the wind in miles per hour, without regard to the direction from which it blew for each day of Bombay Civil Time, also the mean monthly velocity and its variation from the mean of the year.*

1916 Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1 ..	5·2	9·1	7·5	**10·1**	6·7	5·8	7·3	10·3	4·5	4·5	6·6	5·9
2 ..	6·5	8·9	7·5	9·5	7·1	7·4	6·2	6·5	4·8	4·0	**8·2**	4·8
3 ..	6·0	8·6	5·6	10·0	5·6	7·4	5·5	7·3	5·3	4·9	**3·6**	4·4
4 ..	5·5	6·7	9·5	9·5	5·7	6·0	6·1	7·3	5·1	4·3	5·7	5·9
5 ..	4·5	9·9	7·3	7·3	4·9	4·9	6·2	10·7	7·3	4·3	5·8	6·2
6 ..	4·8	**11·3**	4·9	8·4	4·5	6·9	4·6	11·2	**2·9**	5·3	5·9	4·0
7 ..	4·5	9·8	3·4	6·8	4·4	**4·8**	4·4	9·3	5·6	4·3	4·9	4·8
8 ..	6·2	7·0	3·7	4·9	6·3	6·9	5·1	8·8	6·0	3·3	3·7	4·8
9 ..	5·9	7·7	3·4	5·8	8·0	6·2	4·0	7·8	5·4	5·4	4·4	4·5
10 ..	6·8	8·8	3·6	8·1	**9·2**	6·7	5·3	**10·7**	7·0	6·5	4·2	4·5
11 ..	6·9	4·8	3·7	7·6	8·9	**10·3**	6·6	12·5	7·5	6·1	5·6	4·0
12 ..	6·2	4·4	3·5	6·0	8·8	11·1	5·5	10·4	**11·1**	5·3	4·7	4·7
13 ..	6·8	5·9	5·2	7·6	9·0	11·4	6·1	10·9	7·9	3·7	5·1	5·1
14 ..	6·8	8·0	4·5	8·3	5·5	**12·2**	8·4	**16·3**	4·3	4·9	5·9	6·5
15 ..	5·5	6·7	3·1	7·1	5·9	11·2	5·1	15·2	3·5	**7·1**	5·6	3·9
16 ..	6·4	5·6	4·9	5·7	6·2	11·1	5·1	11·6	3·7	5·4	5·3	4·9
17 ..	5·1	7·9	4·0	5·7	6·2	5·5	**3·5**	9·2	4·5	5·6	3·9	**6·2**
18 ..	5·0	6·2	8·1	**3·8**	8·1	5·6	5·0	7·7	4·7	6·7	4·1	5·6
19 ..	4·4	**4·2**	**10·1**	4·1	5·7	6·8	4·1	8·1	11·0	5·5	4·8	4·8
20 ..	6·6	5·6	6·6	5·2	4·6	7·0	3·8	10·0	7·2	4·0	5·3	4·0
21 ..	6·7	7·1	6·8	6·4	4·8	9·9	4·5	13·6	4·7	6·6	4·5	**3·4**
22 ..	7·0	6·6	6·6	4·8	5·0	11·3	**3·0**	11·4	4·7	4·8	4·4	4·0
23 ..	8·1	6·1	7·2	7·0	6·7	11·7	3·8	8·8	2·9	4·5	5·6	5·7
24 ..	**8·9**	6·9	5·4	8·9	5·3	11·5	4·7	6·5	4·0	3·7	5·7	6·5
25 ..	7·5	7·7	3·9	8·8	5·5	11·4	**4·0**	7·5	4·5	4·2	4·2	5·9
26 ..	**4·0**	8·2	3·5	8·6	**4·2**	12·2	7·0	7·8	4·0	4·4	4·0	6·4
27 ..	4·5	9·0	6·7	9·0	6·3	10·1	8·6	9·2	6·3	**3·1**	5·7	6·0
28 ..	4·8	6·9	**7·9**	8·3	5·9	9·5	**9·7**	8·9	4·9	6·1	4·4	4·8
29 ..	4·2	8·4	8·4	8·2	7·8	8·8	8·0	6·5	6·4	5·1	4·6	6·5
30 ..	7·7		7·8	7·6	6·3	6·9	8·3	3·6	3·7	4·5	6·6	5·4
31 ..	8·6		8·7		4·6		9·2	**3·4**		4·5		**7·0**
Monthly Mean.	6·1	7·4	5·9	7·3	6·2	8·6	5·8	9·3	5·5	4·9	5·1	5·2
Annual Variation ..	−0·3	+1·0	−0·5	+0·9	−0·2	+2·2	−0·6	+2·9	−0·9	−1·5	−1·3	−1·2

Table VI *b*.—*Showing the mean diurnal inequality of the velocity of the wind in miles per hour for each month of the year 1916, and for the whole year.*

1916 Bombay Civil Time. Hourly intervals.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
0 to 1 ..	−2·1	−2·0	−1·1	−0·4	−0·4	−0·3	+0·3	−0·1	−0·6	−0·3	−1·8	−1·8	−0·9
1 „ 2 ..	−2·1	−2·3	−1·5	−1·3	−1·0	0	+0·3	−0·4	−0·7	−0·9	−1·6	−1·5	−1·1
2 „ 3 ..	−2·1	−2·6	−1·5	−2·3	−1·5	−0·4	−0·1	−0·4	−1·1	−1·0	−1·3	−1·5	−1·3
3 „ 4 ..	−1·6	−2·1	−1·7	−3·2	−1·8	0	−0·2	+0·1	−0·7	−1·4	−0·4	−0·7	−1·1
4 „ 5 ..	−1·0	−2·1	−2·1	−3·7	−2·3	−0·1	+0·7	+0·1	−0·9	−1·2	+0·1	−0·1	−1·0
5 „ 6 ..	−0·9	−1·8	−1·8	−4·2	−2·9	+0·3	+0·4	0	−0·8	−0·3	0	+0·3	−1·0
6 „ 7 ..	−0·5	−1·8	−1·5	−3·7	−2·5	−0·2	+1·0	−0·1	−1·0	−0·1	0	+0·9	−0·8
7 „ 8 ..	−0·7	−1·8	−1·1	−3·4	−2·1	−0·2	+1·0	−0·6	−0·4	−0·5	+0·3	+0·9	−0·7
8 „ 9 ..	−0·1	−1·5	−0·4	−2·9	−1·5	0	+0·6	−0·4	+0·5	−0·4	+0·7	+1·0	−0·4
9 „ 10 ..	+0·2	−0·9	−0·9	−2·6	−1·2	+0·9	+0·2	+0·1	−0·2	−0·6	+0·4	+0·7	−0·3
10 „ 11 ..	−0·1	−1·0	−1·0	−1·0	0	+0·7	−0·5	−0·1	−1·0	−0·9	−0·7	−0·3	−0·5
11 „ 12 ..	−0·9	−0·1	+0·3	+0·7	+0·4	−0·1	−0·8	+0·4	−0·8	−0·9	−1·5	−1·8	−0·4
12 „ 13 ..	−0·7	+1·2	+1·9	+2·5	+1·8	+0·1	−0·3	+0·8	−0·4	−0·1	−1·5	−1·7	+0·3
13 „ 14 ..	+0·2	+1·9	+2·7	+3·7	+2·5	−0·4	−0·2	+0·8	+0·5	+0·3	−0·6	−0·7	+0·9
14 „ 15 ..	+1·5	+3·0	+3·6	+4·6	+3·4	+0·1	−0·1	+1·4	+1·9	+1·2	+0·7	+0·4	+1·8
15 „ 16 ..	+2·6	+3·7	+3·7	+5·0	+3·6	+0·7	+0·4	+1·1	+1·8	+1·5	+1·5	+1·2	+2·2
16 „ 17 ..	+2·9	+3·9	+3·0	+5·1	+3·4	−0·1	+0·3	+1·2	+1·9	+1·6	+1·8	+1·6	+2·2
17 „ 18 ..	+2·3	+3·2	+2·1	+3·9	+2·6	+0·1	+0·3	+0·6	+2·0	+2·1	+2·1	+2·1	+1·9
18 „ 19 ..	+2·3	+2·9	+1·0	+2·7	+1·5	+0·5	−0·1	−0·1	+1·3	+1·5	+2·6	+2·1	+1·5
19 „ 20 ..	+2·1	+2·0	+0·1	+1·3	+0·1	−0·4	−0·9	−0·4	+0·7	+1·0	+1·8	+1·8	+0·8
20 „ 21 ..	+1·5	+1·2	−0·9	+0·1	−0·6	−0·2	−1·1	−0·7	+0·3	0	+1·0	+0·7	+0·1
21 „ 22 ..	−0·4	−0·7	−1·1	−0·5	−0·4	0	−0·7	−0·8	−0·4	+0·1	−0·4	−0·5	−0·5
22 „ 23 ..	−1·4	−1·1	−1·3	−0·4	−0·6	+0·2	−0·7	−1·1	−0·9	−0·2	−1·0	−1·3	−0·8
23 „ 24 ..	−1·9	−1·8	−1·2	−0·1	−0·6	−0·6	+0·1	−0·7	−1·0	−0·4	−1·7	−1·5	−0·9
Range.	5·0	6·5	5·8	9·3	6·5	1·5	2·1	2·5	3·1	3·5	4·4	3·9	3·5

	Miles.
The mean velocity for June to August	7·9
The mean velocity for September to May	6·0
The mean velocity for the year	6·4

Mean Daily Velocities of the North and East Components of the Wind, 1916.

Table VIc.—*Showing the mean velocities of the North or South and East or West components of the winds which blew on each day of the year 1916.*

In Miles per Hour.

1916	Month.																							
Date.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.
1 ..	3·3 N	1·5 W	7·3 N	4·3 W	5·6 N	2·1 W	7·2 N	5·5 W	3·8 N	4·9 W	5·1 S	1·7 W	2·8 S	6·7 W	0·5 N	10·0 W	0·1 N	1·7 W	0·7 S	0.4 W	5·0 N	2·7 W	4·6 N	1·2 W
2 ..	5·4 N	1·8 W	7·0 N	4·0 W	5·9 N	0·1 W	5·9 N	6·3 W	4·2 N	4·2 W	4·8 S	4·1 E	2·5 S	5·6 W	2·3 S	5·6 W	1·4 N	3·0 W	1·9 N	2.9 W	6·5 N	4·5 W	3·4 N	1·2 W
3 ..	4·8 N	1·2 W	7·0 N	3·6 W	3·3 N	1·7 W	7·3 N	5·6 W	1.8 N	4·0 W	3·4 S	3·1 W	0·1 S	5·1 W	1·7 S	6·9 W	2·3 N	2·6 W	2·3 N	1.4 W	0·6 N	1·2 W	3·0 N	1·0 W
4 ..	3·4 N	0·8 W	4·9 N	0·8 W	7·8 N	4·2 W	6·7 N	5·1 W	0·1 S	3·8 W	0·5 S	3·5 W	0·4 N	4·5 W	4·5 S	2·2 W	2·3 N	1·1 W	0·6 N	2.7 W	3·2 N	3·2 W	3·7 N	1·3 E
5 ..	2·4 N	0·0	8·2 N	3·1 W	6·4 N	2·8 W	5·6 N	3·7 W	0·4 N	3·4 W	2·1 S	0·4 E	2·6 S	0·4 E	0·3 S	10·6 W	5·2 N	2·7 W	2·1 S	2.6 W	4·4 N	0·9 W	3·7 N	1·7 E
6 ..	2·1 N	0·7 W	10·0 N	2·3 W	1·8 N	2·1 W	7·0 N	3·7 W	0·7 S	3·5 W	1·8 N	1·8 W	1·1 S	1·0 W	0·1 S	11·2 W	0·4 S	0·2 W	2·1 S	1.5 W	4·2 N	0·1 W	1·7 N	1·0 E
7 ..	2·9 N	2·1 W	8·1 N	2·5 W	2·3 S	1·0 W	4·3 N	3·7 W	1·1 N	4·2 W	1·2 S	2·6 W	2·0 S	2·2 W	0·2 S	9·2 W	1·8 S	0·1 E	2·8 S	0.4 E	0·0 N	1·0 E	1·9 N	2·1 E
8 ..	4·5 N	1·7 W	4·0 N	0·6 E	3·6 S	1·1 W	1·0 N	4·3 W	2·2 N	5·8 W	5·7 S	1·4 E	1·9 N	4·3 W	0·5 S	8·7 W	3·0 N	4·2 W	0·8 S	1.0 W	0·3 N	0·7 W	0·8 N	1·4 E
9 ..	4·1 N	0·4 E	5·6 N	2·0 W	1·2 S	1·5 W	3·2 N	3·2 W	3·3 N	7·2 W	0·5 S	4·3 W	1·3 N	2·7 W	0·5 S	7·6 W	1·9 N	4·5 W	1·7 N	0.7 W	3·0 N	0·7 W	2·4 N	1·0 E
10 ..	4·2 N	2·0 E	7·4 N	3·3 W	1·6 S	1·1 W	5·6 N	5·0 W	4·7 N	7·2 W	4·0 S	1·5 W	2·0 S	3·4 W	0·9 S	10·6 W	3·4 N	4·5 W	5·0 N	2.2 W	2·5 N	0.1 E	1·7 N	0·4 E
11 ..	1·8 N	2·3 E	1·1 N	0·7 W	1.6 S	0·7 W	5·4 N	4·3 W	4·7 N	6·6 W	1·0 S	10·0 W	4·4 S	0·4 E	1·8 S	12·1 W	3·7 N	5·2 W	4·4 N	2.2 W	1·7 N	2·7 E	0·9 N	1·5 E
12 ..	2·3 N	1·7 E	0·2 S	2·3 W	1·4 S	1·5 W	3·1 N	4·3 W	4·3 N	6·6 W	0·2 S	11·1 W	0·8 S	4·0 W	4·0 S	9·6 W	5·4 S	8·7 E	3·1 N	3.7 W	0·6 N	2·1 E	1·2 N	1·2 E
13 ..	4·0 N	1·5 E	2·1 N	2·1 W	0·4 S	1·8 W	3·7 N	5·9 W	3·8 N	8·1 W	0·0	11·4 W	4·5 S	2·0 W	4·0 S	10·1 W	3·8 S	4·0 W	1·6 N	1.4 W	2·5 N	1·3 E	2·2 N	1·5 E
14 ..	3·7 N	1·2 E	6·5 N	2·2 W	1·0 S	2·3 W	5·4 N	2·6 W	2·2 N	5·0 W	0·0	12·2 W	7·9 S	0·3 E	0·9 S	16·1 W	2·4 S	3·4 W	1·4 N	0.1 E	3·1 N	0·3 E	3·4 N	3·3 E
15 ..	3·2 N	1·8 E	4·6 N	3·1 W	1·3 S	1·8 W	4·5 N	4·9 W	1·5 N	5·5 W	0·0	11·2 W	4·5 S	0·2 E	2·1 S	14·6 W	1·9 S	2·1 W	1·7 N	3.0 E	2·9 N	0·6 E	1·4 N	0·9 E
16 ..	1·0 N	1·5 E	2·7 N	3·0 W	0·6 N	1·4 W	2·1 N	4·9 W	2·4 N	5·5 W	1·2 S	10·6 W	2·2 S	2·2 W	4·5 S	10·7 W	1·7 S	1·0 W	3·7 N	1.0 W	2·6 N	0·4 E	3·0 N	0·0
17 ..	1·9 N	0·0	4·7 N	1·4 W	2·0 S	1·1 W	2·3 N	3·4 W	2·4 N	5·2 W	2·6 S	4·5 W	1·3 S	1·4 W	3·2 S	8·6 W	2·3 S	0·4 E	4·0 N	1.3 W	2·0 N	0·5 E	4·3 N	0·3 W
18 ..	1·9 N	1·5 E	5·0 N	2·0 W	4·2 N	6·5 W	1·3 S	3·3 W	2·7 N	6·1 W	4·3 S	1·2 W	4·0 S	0·5 W	2·1 S	7·3 W	2·1 S	1·8 W	3·3 N	4.9 E	2·1 N	0·5 E	4·3 N	0·6 W
19 ..	1·4 N	1·4 E	1·1 N	2·8 W	7·3 N	6·5 W	0·8 S	3·9 W	0·3 N	3·9 W	6·2 S	0·3 W	3·2 S	0·1 W	0·3 S	8·0 W	0·7 N	10·8 W	2·3 N	2.3 E	1·2 N	1·3 E	3·2 N	0·5 W
20 ..	4·2 N	1·2 W	0·6 N	1·9 W	4·2 N	3·0 W	1·7 N	4·8 W	1·0 N	3·1 W	4·2 S	2·8 W	1·0 S	0·7 W	0·4 S	10·0 W	2·8 N	6·1 W	2·6 S	1.2 W	3·3 N	0·5 E	1·7 N	0·3 E
21 ..	4·5 N	1·3 W	4·8 N	2·0 W	3·6 N	3·3 W	1·9 N	5·2 W	1·2 S	3·9 W	3·2 S	7·0 W	2·1 N	1·0 W	2·3 S	13·1 W	0·9 N	3·2 W	6·1 S	1.1 E	2·6 N	1·2 E	1·2 N	0·0
22 ..	4·6 N	0·7 W	4·3 N	3·5 W	3·5 N	2·9 W	0·8 N	4·6 W	0·4 N	3·2 W	2.3 S	10·8 W	0·4 N	1·6 W	3·9 S	10·6 W	0·6 N	3·4 W	2·9 S	1.8 E	2·3 N	0·7 E	2·3 N	0·3 W
23 ..	6·9 N	0·3 W	4·1 N	2·6 W	5·3 N	2·9 W	3·2 N	5·3 W	4·1 S	1·0 W	0.8 S	11·6 W	2·6 S	1·0 W	2·1 S	8·4 W	0·1 S	0·1 W	1·2 N	1.4 W	3·0 N	1·4 E	2·1 N	0·1 W
24 ..	7·6 N	0·8 W	4·8 N	2·1 W	1·5 N	4·3 W	5·6 N	4·6 W	2·0 S	3·7 W	1.5 S	11·2 W	2·7 S	0·1 W	0·4 S	6·4 W	1·4 S	1·0 W	0·8 N	0.7 W	3·1 N	4·6 E	3·4 N	0·8 E
25 ..	6·0 N	2·3 W	5·9 N	3·6 W	2·0 S	1·4 W	5·4 N	5·4 W	0·4 N	4·2 W	0.7 S	11·3 W	3·1 S	0·3 E	0·1 N	7·5 W	0·1 S	4·5 W	0·4 N	0.1 E	1·8 S	1·2 E	2·8 N	1·3 E
26 ..	2·6 N	0·8 W	6·5 N	3·3 W	0·2 S	2·4 W	4·8 N	5·9 W	2·6 S	2·7 W	0.4 S	12·2 W	6·2 S	2·1 E	1·2 S	7·5 W	1·5 S	2·3 W	2·0 N	1.3 W	1·0 N	0·4 E	4·3 N	0·1 E
27 ..	1·5 N	1·0 W	7·0 N	4·7 W	2·3 N	4·5 W	5·5 N	5·8 W	2·2 S	2·8 W	1.3 S	9·9 W	3·3 S	3·5 W	0·0	9·2 W	2·1 S	2·6 W	0·3 S	0.2 E	2·9 N	1·1 E	3·1 N	1·6 E
28 ..	2·9 N	1·5 W	5·3 N	3·5 W	4·7 N	4·8 W	5·1 N	5·6 W	0·5 S	5·8 W	3.0 S	8·9 W	1·2 N	8·1 W	1·0 S	8·7 W	3·2 S	1·0 W	4·3 S	2.5 E	2·7 N	0·1 W	0·7 N	2·2 E
29 ..	2·1 N	2·0 W	6·7 N	4·2 W	4·5 N	5·6 W	5·0 N	5·4 W	2·8 N	7·2 W	3.4 S	8·0 W	2·6 S	7·1 W	2·0 S	6·1 W	4·1 S	0·8 W	1·3 S	1.2 E	2·8 N	0·5 W	1·8 N	1·6 E
30 ..	5·5 N	3·9 W			4·7 N	5·9 W	4·0 N	4·9 W	2·6 N	5·6 W	3.2 S	6·0 W	2·6 S	7·5 W	1·0 S	3·1 W	1·0 S	2·6 W	0·3 S	0.2 W	5·1 N	1·7 W	3·4 N	0·2 E
31 ..	6·7 N	4·7 W			4·9 N	6·1 W			0·1 S	4·0 W			2·6 S	8·6 W	0·6 N	2·2 W			3·2 N	0.5 W			4·5 N	1·4 E
Monthly Mean ..	3·7 N	0·4 W	5·1 N	2·6 W	2·1 N	2·9 W	4·0 N	4·7 W	1·2 N	4·8 W	2·1 S	6·2 W	2·1 S	2·6 W	1·5 S	8·8 W	0·2 S	2·3 W	0·6 N	0·4 W	2·5 N	0·2 E	2·6 N	0·7 E
Annual Variation ..	2·4 N	2·5 W	3·8 N	0·3 E	0·8 N	0·0	2·7 N	1·8 W	0·1 S	1·9 W	3·4 S	3·3 W	3·4 S	0·3 E	2·8 S	5·9 W	1·5 S	0·6 E	0·7 S	2·5 E	1·2 N	3·1 E	1·3 N	3·6 E

The Velocities of the mean components for the year are 1·3N and 2·9W.

TABLE VId.—*Showing the mean diurnal inequality of the velocity of the North or South and East or West components of the wind for each month of the year* 1916 *and for the whole year.*

In miles per hour.

1916	Month.																								Years.	
Bombay Civil Time. Hourly intervals.	January.		February.		March.		April.		May.		June.		July		August.		September.		October		November.		December.			
	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.
0 to 1	0·8	S 1·4 E	1·0	S 1·3 E	0·5	N 0·2 E	1·2	N 0·8 E	0·9	N 0.4 E	0·2	S 0·6 E	0·7	S 0·1 E	0·1	N 0·1 W	0·2	S 0·2 E	0·7	S 1·6 E	0·7	S 0·8 E	0 6	S 1·0 E	0·2	S 0·7 E
1 „ 2	1·1	S 1·8 E	0·9	S 2·1 E	0·5	N 0·7 E	0·9	N 2·0 E	0·7	N 1·1 E	0·6	S 0·4 E	0·5	S 0·6 E	0·1	N 0·3 E	0·1	S 0·6 E	0·9	S 1·2 E	0·4	S 1·2 E	0·7	S 1·4 E	0·2	S 1·1 E
2 „ 3	1·3	S 2·5 E	1·0	S 2·9 E	0·4	N 0·9 E	0·1	S 3·0 E	0·6	N 1·7 E	0·4	S 1·2 E	0·4	S 0·6 E	0·4	N 0·0	0·1	S 1·0 E	1·0	S 2·0 E	0·1	S 1·4 E	0·5	S 1·8 E	0·3	S 1·6 E
3 „ 4	1·0	S 2·9 E	0·7	S 2·7 E	0·1	S 2·3 E	0·7	S 4·2 E	0·5	N 2·7 E	**0·7**	**S** 0·6 E	0·4	S 1·1 E	0·2	N 0·1 W	0·6	S 1·5 E	0·7	S 2·1 E	0·2	S 2·3 E	0·5	S 2·6 E	0·4	S 2·1 E
4 „ 5	0·8	S 3·6 E	0·7	S 2·9 E	0·5	S 3·4 E	1·2	S 4·6 E	0·4	S 3·2 E	0·6	S 0·4 E	0·8	S 0·2 E	0·1	N 0·1 W	0·6	S 2·3 E	1·0	S 2·8 E	0·1	S 3·2 E	0·7	S 3·5 E	0·6	S 2·5 E
5 „ 6	0·7	S 3·8 E	1·2	S 4·7 E	1·1	S 4·1 E	1·5	S 5·0 E	0·5	S 3·9 E	0·4	S 0·6 E	1·3	S 1·6 E	0·2	N 0·2 E	0·1	S 2.1 E	**1·2**	**S** 3·1 E	1·0	S 3·9 E	0·8	S 4·0 E	0·8	S 3·1 E
6 „ 7	0·9	S 4·6 E	1·2	S 5·1 E	1·7	S 4·5 E	1·5	**S 5·4 E**	1·0	**S 4·5** E	0·1	S 0·7 E	**1·7**	**S** 2·3 E	0·0	0·5 E	1·2	S 2·9 E	1·1	S 2·7 E	1·0	S 4·0 E	1·0	S 4·8 E	1·0	S 3·5 E
7 „ 8	0·9	S 4·6 E	**1·4**	**S 5·0 E**	**1·9**	**S 5·2 E**	1·2	S 5·4 E	1·2	S 4·1 E	0·4	N 0·7 E	1·3	**S 2·7 E**	0·5	**S 1·2 E**	1·4	**S 3·5 E**	1·1	**S 3·2 E**	1·2	S 4·3 E	1·4	**S 5·1 E**	**1·1**	**S 3·7 E**
8 „ 9	1·2	S 5·3 E	1·2	S 5·7 E	1·5	S 5·0 E	1·9	S 4·7 E	1·4	S 2·8 E	0·1	S 1·1 E	1·1	S 2·5 E	0·2	S 1·1 E	**1·7**	S 3·4 E	0·7	S 3·2 E	1·6	**S 4·9** E	1·2	S 5·1 E	1·1	S 3·7 E
9 „ 10	1·3	S 4·9 E	0·8	S 4·2 E	1·5	S 3·8 E	1·9	S 3·2 E	**1·6**	**S** 1·2 E	0·1	S 0·8 E	0·5	S 1·5 E	0·3	S 0·3 E	1·0	S 1·9 E	0·5	S 2·2 E	**1·7**	**S** 4·1 E	1·0	S 4·8 E	1·0	S 2·7 E
10 „ 11	1·5	S 4·1 E	1·0	S 2·0 E	1·2	S 1·2 E	1·5	S 0·7 W	1·1	S 0·6 W	0·2	S 0·4 W	0·2	N 0·6 E	0·2	S 0·4 E	0·1	N 1·2 E	0·8	S 1·0 E	1·5	S 3·1 E	1·4	S 3·5 E	0·8	S 1·3 E
11 „ 12	1·5	S 1·1 E	0·7	S 1·2 W	0·5	S 1·2 W	1·0	S 2·5 W	1·0	S 1·5 W	0·2	S 0·5 W	0·3	N 0·1 E	0·3	S 0·4 W	0·0	0·1 E	0·1	S 0·9 W	1·5	S 1·0 E	**1·7**	S 1·6 E	0·7	S 0·4 W
12 „ 13	1·1	S 1·3 W	0·1	S 3·7 W	0·2	S 3·7 W	0·4	S 4·0 W	0·7	S 2·8 W	0·3	S 0·4 W	0·1	N 0·7 W	**0·8**	**S** 0·7 W	0·4	N 1·0 W	0·1	S 2·9 W	1·7	S 0·7 W	1·3	S 1·0 W	0·5	S 1·9 W
13 „ 14	0·4	S 3·4 W	0·4	N 4·3 W	0·4	N 4·6 W	0·4	N 5·0 W	0·0	3·4 W	0·4	S 0·2 W	0·9	N 1·0 W	0·2	S 0·9 W	0·6	N 2·3 W	0·6	N 3·4 W	1·0	S 2·4 W	0·6	S 2·9 W	0·1	N 2·8 W
14 „ 15	0·2	S 5·0 W	0·9	N 5·3 W	0·7	N **5·5 W**	1·0	N **5·6 W**	0·8	N **4·4 W**	0·1	S 0·9 W	1·0	N 1·5 W	0·1	S **1·5 W**	1·0	N **4·0 W**	0·5	N 4·2 W	0·3	S 4·8 W	0·0	5·1 W	0·4	N 4·0 W
15 „ 16	0·9	N **8·5 W**	1·2	N **6·0 W**	1·2	N 5·4 W	1·7	N 5·4 W	1·2	N 4·4 W	0·6	N **1·4 W**	1·5	N 2·4 W	0·1	S 1·2 W	0·4	N 3·7 W	1·1	N **4·6 W**	0·4	N **5·6 W**	0·6	N 6·0 W	0·9	N **4·4 W**
16 „ 17	1·8	N 6·2 W	2·1	N 5·6 W	1·5	N 4·5 W	**2·2**	N 5·2 W	1·0	N 4·2 W	0·6	N 1·2 W	1·3	N 2·4 W	0·0	1·3 W	1·0	N 4·0 W	1·6	N 4·3 W	1·2	N 5·6 W	1·0	N **6·2 W**	1·3	N 4·2 W
17 „ 18	1·9	N 5·5 W	2·0	N 4·8 W	**1·7**	N 3·2 W	1·8	N 3·9 W	1·1	N 3·4 W	0·7	**N** 1·2 W	**1·8**	**N 2·5 W**	0·4	N 0·8 W	0·8	N 3·8 W	1·6	N 3·1 W	2·1	N 5·1 W	1·7	N 5·9 W	1·5	N 3·6 W
18 „ 19	2·6	N 5·0 W	2·1	N 4·3 W	1·7	N 2·1 W	1·5	N 3·2 W	1·0	N 2·3 W	0·7	N 0·9 W	1·6	N 2·1 W	0·4	N 0·1 W	**1·2**	**N** 2·5 W	**2·1**	**N** 2·6 W	2·8	N 4·2 W	2·6	N 5·2 W	**1·7**	**N** 2·9 W
19 „ 20	3·0	**N** 3·9 W	**2·2**	**N** 2·6 W	1·4	N 1·4 W	1·0	N 1·9 W	0·6	N 0·8 W	0·5	N 0·5 W	0·7	N 1·0 W	**0·6**	**N** 0·1 E	0·7	N 1·7 W	1·2	N 0·7 W	**3·4**	**N** 3·3 W	**3·2**	**N** 4·1 W	1·5	N 1·8 W
20 „ 21	2·8	N 3·1 W	2·0	N 1·8 W	0·5	N 0·4 W	0·3	N 0·8 W	0·4	N 0·1 E	0·0	0·3 W	0·9	N 0·7 W	0·4	N 0·6 E	0·5	N 0·8 W	0·9	N 0·7 W	2·3	N 1·8 W	2·6	N 3·0 W	1·1	N 1·1 W
21 „ 22	1·4	N 1·2 W	0·6	N 0·3 W	0·1	N 0·1 E	0·1	S 0·1 E	0·0	0.5 E	0·4	N 0·1 W	0·1	S 0·2 E	0·4	N 0·6 E	0·2	N 0·7 E	0·7	N 0·4 E	1·5	N 1·0 W	1·6	N 1·2 W	0·6	N 0·1 W
22 „ 23	0·6	N 0·2 E	0·1	S 0·5 E	0·1	S 0·4 E	0·4	N 0·1 W	0·4	N 0.7 E	0·3	S 0·4 E	0·4	S 0·4 E	0·1	N 1·0 E	0·3	S 0·8 E	0·1	N 0·8 E	0·4	N 0·1 W	0·5	N 0·0	0·1	N 0·4 E
23 „ 24	0·2	S 0 1 E	0·9	S 1·2 E	0·1	S 0·3 E	0·6	N 0·1 W	0·4	N 0.7 E	0.2	N 0·1 E	0·6	S 0·4 E	0·1	S 0·5 E	0·0	1·0 E	0·4	S 1·6 E	0·1	N 0·1 W	0.0	0·7 E	0·1	S 0·5 E

Aggregate and Mean Velocities and Relative Frequency of Different Winds, 1916.

Table VIe.—*Showing for the year* 1916 *the sums of the velocities, and the mean velocities, in miles per hour, of the winds which blew in each month, from each of the sixteen principal directions and also the number of hourly observations which those sums comprise; the latter numbers indicating the relative frequency of the same wind (as to direction) in the several months, and of different winds during the same month.*

1916	N.			N. N. E.			N. E.			E. N. E.			E,			E. S. E.			S. E			S. S. E.		
Month.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.
	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Mies.		Miles	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.
January ..	347	72	4·8	317	84	3·8	214	48	4·5	836	153	5·5	140	28	5·0	152	27	5·6	4	1	4·0	10	4	2·5
February ..	401	63	6·4	409	77	5·3	123	27	4·6	235	46	5·1	86	18	4·8	61	13	4·7	7	2	3·5	29	9	3·2
March ..	115	23	5·0	143	33	4·3	56	16	3·5	130	27	4·8	54	9	6·0	97	21	4·6	133	26	5·1	113	33	3·4
April ..	111	25	4·4	154	36	4·3	112	34	3·3	55	16	3·4	40	11	3·6	9	3	3·0	9	2	4·5	3	2	1·5
May ..	4	2	2·0	86	31	2·8	4	3	1·3	23	7	3·3	3	1	3·0	62	8	7·7	35	8	4·4	41	7	5·9
June ..	5	1	5·0	0	0	0	4	1	4·0	23	4	5·7	40	6	6·7	146	20	7·3	100	12	8·3	344	43	8·0
July ..	14	6	2·3	4	1	4·0	2	1	2·0	30	9	3·3	9	3	3·0	56	9	6·2	303	52	5·8	703	102	6·9
August ..	0	0	0·0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	4	3·7	55	5	11·0
September ..	15	4	3·7	70	20	3·5	47	15	3·1	65	18	3·6	37	8	4·6	336	45	7·5	164	26	6·3	378	65	5·8
October ..	76	16	4·7	158	51	3·1	114	26	4·4	263	51	5·1	120	38	3·2	413	74	5·6	223	38	5·9	216	41	5·3
November ..	234	64	3·7	119	36	3·3	178	48	3·7	759	156	4·9	301	61	4·9	188	44	4·3	32	7	4·6	17	4	4·2
December ..	169	42	4·0	191	57	3·4	213	62	3·4	992	189	5·2	482	93	5·2	81	19	4·3	0	0	0	1	1	1·0
Year ..	1,491	318	4·7	1,651	426	3·9	1,067	281	3·8	3,411	676	5·0	1,312	276	4.8	1,601	283	5·7	1,025	178	5·8	1,910	316	6·0

1916	S.			S. S. W.			S. W.			W. S. W.			W.			W. N. W.			N. W.			N. N. W.			Number of observations.	
Month.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity	Sum of Velocities.	Number of Observations.	Mean Velocity.	Calm.	Variable.
	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.		
January ..	..	..	..	..	..	..	..	..	..	12	2	6·0	104	18	5·8	460	67	6·9	1,184	145	8·2	726	95	7·6	..	..
February ..	..	..	..	..	..	..	4	1	4·0	32	6	5·3	95	14	6·8	647	84	7·7	1,769	183	9·7	1,242	153	8·1	..	..
March ..	100	40	2·5	37	15	2·5	41	11	3·7	232	53	4·4	438	93	4·7	945	129	7·3	1,133	131	8·6	625	73	8·6	11	..
April ..	11	3	3·7	10	5	2·0	5	4	1·2	142	33	4·3	240	37	6·5	1,868	214	8·7	1,758	194	9·1	740	99	7·5	2	..
May ..	73	12	6·1	182	42	4·3	88	22	4·0	362	69	5·2	800	113	7·1	2,159	302	7·1	526	79	6·7	204	35	5·8	3	..
June ..	345	57	6·1	234	45	5·2	253	48	5·3	1,432	173	8·3	2,928	262	11·2	286	36	7·9	67	10	6·7	4	1	4·0	1	..
July ..	281	54	5·2	237	57	4·2	178	44	4·0	988	150	6·6	902	143	6·3	446	81	5·5	75	14	5·4	69	15	4·6	3	..
August ..	32	6	5·3	38	9	4·2	92	16	5·7	2,605	281	9·3	3,934	391	10·0	163	30	5·4	6	1	6·0	..	..	..	1	..
September ..	96	22	4·4	60	22	2·7	125	36	3·5	339	74	4·6	993	170	5·8	820	125	6·6	251	38	6·6	180	30	6.0	2	..
October ..	191	39	4·9	60	17	3·5	57	18	3·2	106	27	3·9	301	68	4·4	449	83	5·4	615	101	6·1	301	54	5.6	2	..
November ..	4	1	4.0	12	4	3·0	18	5	3·6	21	4	5·2	108	24	4·5	416	80	5·2	663	85	7·8	605	95	6.4	1	1
December ..	..	..	..	..	..	..	..	..	..	18	5	3·6	111	24	4·6	390	76	5·1	660	93	7·1	561	83	6.8	..	..
Year ..	1,133	234	4·8	870	216	4·0	861	205	4·2	6,289	877	7·2	6,954	1,357	8·1	9,049	1,307	6·9	8,707	1,074	8·1	5,257	733	7·2	26	1

Velocity of Wind, 1916.

Dines' Anemograph.

TABLE VIf.—*Mean velocity of the wind in miles per hour for each day of Bombay Civil Time, also the meanm onthly velocity and its variation from the mean of the year.*

1916 Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1 ..	4·7	8·5	7·4	10·0	6·8	6·0	6·3	8·8	4·5	4·7	6·5	5·7
2 ..	5·9	8·2	7·2	9·0	6·8	7·7	5·2	5·9	4·8	4·0	8·1	4·8
3 ..	5·4	7·8	5·7	9·4	5·4	7·3	4·9	6·3	5·4	4·9	3·7	4·3
4 ..	5·1	6·2	9·2	9·1	5·6	6·0	5·7	7·2	5·2	4·0	5·8	5·6
5 ..	4·2	9·2	7·3	7·0	4·5	4·7	6·4	9·5	7·0	4·6	5·8	6·0
6 ..	4·2	10·4	4·8	8·0	4·5	6·5	4·5	9·8	2·9	5·2	5·8	3·9
7 ..	3·9	8·9	3·4	6·3	4·3	4·5	4·2	8·3	5·5	4·4	4·7	4·9
8 ..	5·7	6·5	3·3	4·5	6·3	7·2	4·7	7·5	5·8	3·7	3·7	4·8
9	5·4	7·2	2·9	5·6	8·1	6·1	3·6	6·8	5·0	5·5	4·3	4·5
10 ..	6·2	8·0	3·0	7·7	9·2	6·6	5·0	9·3	6·6	6·9	4·5	4·3
11 ..	6·1	4·2	3·4	7·3	8·8	8·7	7·0	10·7	7·2	6·3	5·9	3·8
12 ..	5·6	3·5	3·4	5·5	8·4	9·9	5·2	8·8	11·0	5·5	5·0	4·7
13 ..	6·5	5·1	4·9	7·1	9·0	10·4	6·2	9·2	7·4	4·2	5·2	5·0
14 ..	6·4	7·4	4·4	8·0	5·5	10·8	9·0	14·0	4·1	5·1	5·9	6·5
15 ..	5·2	5·9	3·3	7·0	5·6	10·1	5·8	13·1	3·7	7·2	5·5	3·9
16 ..	6·1	5·1	4·9	5·4	5·9	9·9	4·9	10·1	3·7	5·5	5·2	4·7
17 ..	4·5	7·4	4·2	5·7	5·8	4·7	3·7	8·0	4·7	5·7	4·0	6·0
18 ..	4·7	5·6	8·0	3·5	8·0	5·4	5·8	6·6	5·0	6·6	4·1	5·4
19 ..	4·2	3·8	9·9	4·3	5·6	7·2	4·3	7·0	10·1	5·6	5·0	4·7
20 ..	6·2	5·4	6·4	5·2	4·6	6·9	3·7	9·0	6·7	4·7	5·4	4·0
21 ..	6·1	6·7	6·3	6·3	4·7	8·7	4·3	12·2	4·7	8·2	4·7	3·4
22 ..	6·5	6·5	6·2	4·8	4·8	9·8	3·0	9·9	4·4	4·9	4·6	3·6
23 ..	7·7	5·7	6·8	7·0	6·8	10·5	3·7	7·8	2·9	4·5	5·6	5·2
24 ..	8·3	6·4	4·8	8·9	5·2	10·0	4·8	6·0	3·9	3·8	5·5	5·9
25 ..	6·8	7·3	4·1	8·8	5·2	10·0	4·1	7·0	4·1	4·2	4·4	5·2
26 ..	3·6	7·7	3·8	8·6	4·1	10·5	7·8	6·7	4·1	4·4	4·1	5·7
27 ..	4·0	8·7	6·3	8·6	6·0	8·7	8·0	8·1	6·3	3·0	5·7	5·3
28 ..	4·2	7·0	7·7	8·2	5·4	8·2	8·3	7·8	5·2	6·9	4·5	4·4
29 ..	3·7	8·3	8·2	8·1	7·1	7·9	6·9	5·9	7·0	5·0	4·5	5·7
30 ..	7·2		7·8	7·5	5·8	6·2	7·0	3·3	3·6	4·7	6·4	4·9
31 ..	7·9		8·6		4·4		7·7	3·2		4·6		6·6
Monthly Mean	5·6	6·9	5·7	7·1	6·1	7·9	5·5	8·2	5·4	5·1	5·1	5·0
Annual Variation.	−0·5	+0·8	−0·4	+1·0	0·0	+1·8	−0·6	+2·1	−0·7	−1·0	−1·0	−1·1

	Miles.
The mean velocity for June to August ..	7·2
The mean velocity for September to May ..	5·8
The mean velocity for the year ..	6·1

TABLE VIg.—*Showing the mean diurnal inequality of the velocity of the wind in miles per hour for each month of the year* 1916 *and for the whole year.*

1916 Bombay Civil Time. Hourly intervals.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
0 to 1 ..	−1·7	−1·8	−0·9	−0·3	−0·4	−0·3	+0·3	−0·2	−0·5	0·0	−1·6	−1·5	−0·7
1 „ 2 ..	−2·0	−2·2	−1·3	−1·1	−1·0	+0·2	+0·3	−0·3	−0·5	−0·5	−1·5	−1·5	−0·9
2 „ 3 ..	−1·9	−2·3	−1·1	−2·0	−1·3	−0.1	0·0	−0·6	−0·7	−0·8	−0·9	−1·3	−1·1
3 „ 4 ..	−1·6	−2·0	−1·6	−2·9	−1·7	+0·2	−0·1	0·0	−0·6	−1·0	−0·3	−0·7	−1·0
4 „ 5 ..	−1·0	−1·8	−1·9	−3·5	−2·2	+0·1	+0·8	+0·2	−0·6	−0·9	+0·3	−0·2	−0·9
5 „ 6 ..	−0·8	−1·9	−1·4	−3·9	−2·3	+0·4	+0·7	−0·1	−0·8	0·0	+0·1	+0·3	−0·8
6 „ 7 ..	−0·7	−1·7	−1·3	−3·6	−2·3	−0·3	+1·2	−0·2	−0·9	0·0	+0·1	+0·6	−0·8
7 „ 8 ..	−0·6	−1·8	−0·9	−3·2	−1·8	−0·1	+1·2	−0·5	−0·4	−0·4	+0·3	+0·6	−0·6
8 „ 9 ..	−0·3	−1·5	−0·5	−2·6	−1·5	+0·1	+0·7	−0·5	+0·4	−0·3	+0·6	+0·8	−0·4
9 „ 10 ..	+0·1	−0·8	−1·0	−2·6	−1·1	+0·8	+0·3	+0·1	+0·2	−1·6	0·0	+0·7	−0·3
10 „ 11 ..	−0·4	−1·0	−0·9	−1·1	−0·4	+0·4	−0·6	0·0	−0·9	−1·0	−1·2	−0·6	−0·6
11 „ 12 ..	−0·7	−0·2	+0·2	+0·6	+0·5	−0·3	−0·7	+0·4	−0·6	−0·0	−1·3	−1·5	−0·4
12 „ 13 ..	−0·5	+1·1	+1·7	+2·2	+1·4	+0·2	−0·3	+0·7	−0·7	−0·6	−1·6	−1·6	+0·2
13 „ 14 ..	+0·1	+1·9	+2·4	+3·5	+2·2	−0·2	−0·3	+0·7	+0·3	0·0	−0·9	−0·5	+0·8
14 „ 15 ..	+1·2	+2·8	+3·2	+4·2	+2·8	0·0	−0·3	+1·1	+1·6	+0·7	+0·5	+0·3	+1·5
15 „ 16 ..	+2 3	+3·5	+3·4	+4·5	+3·1	+0·6	−0·1	+0·9	+1·6	+1·1	+1·3	+0·9	+1·9
16 „ 17 ..	+2·5	+3·5	+3·0	+4·6	+3·0	−0·2	0·0	+1·1	+1·6	+1·3	+1·7	+1·4	+2·0
17 „ 18 ..	+2·4	+3·2	+2·0	+3·5	+2·3	0·0	+0·1	+0·5	+1·6	+1·7	+2·0	+1·7	+1·7
18 „ 19 ..	+2·3	+2·7	+0·9	+2·5	+1·5	−0·6	−0·2	−0·1	+1·2	+1·6	+2·7	+2·0	+1·4
19 „ 20 ..	+2 2	+2·0	+0·3	+1·4	+0·1	−0·5	−0·5	−0·4	+0·5	+1·0	+1·9	+1·6	+0·8
20 „ 21 ..	+1·4	+0·9	−0·7	−0·2	−0·4	0·0	−0·8	−0·7	+0·1	+0·1	+1·2	+0·7	+0.1
21 „ 22 ..	−0·3	−0·8	−0·9	−0·3	−0·5	0·0	−0·4	−0·6	−0·3	+0·4	−0·3	−0·5	−0.4
22 „ 23 ..	−1·3	−1·2	−1·0	−0·3	−0·2	+0·2	−0.4	−1·0	−0·7	−0·2	−0·8	−1·3	−0·7
23 „ 24 ..	−1·7	−1·5	−0·8	+0·1	−0·4	−0·5	+0.3	−0·6	−0·5	−0·1	−1·4	−1·4	−0·7
Range ..	4·5	5·8	5·3	8·5	5·4	1·4	2·0	2·1	2·5	2·7	4·3	3·6	3·1

Temperature of the ground, 1916.

TABLE VII.—*Showing for each month the mean temperature of the ground in the thermometer shed and its annual variation at the respective depths of* 1, 9, 20, 60 and 132 *inches below the surface.*

Depth.	1 Inch.		9 Inches.		20 Inches.		60 Inches.		132 Inches.	
Month.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.
	°		°		°		°			
January ..	77·2	−4·8	78·0	−4·8	81·9	−3·5	83·6	−1·8	83·0	−0·7
February	75·8	−6·4	76·6	−6·2	80·4	−5·0	82·9	−2·5	82·8	−0·9
March ..	82·3	+0·3	81·3	−1·5	82·4	−3·0	83·4	−2·0	83·2	−0·5
April ..	85·1	+3·1	84·5	+1·7	86·1	+0·7	84·7	−0·7	83·6	−0·1
May ..	87·0	+5·0	86·7	+3·9	88·2	+2·8	86·3	+0·9	84·2	+0·5
June ..	84·8	+2·8	86·4	+3·6	88·8	+3·4	87·3	+1·9	84·4	+0·7
July ..	83·4	+1·4	85·1	+2·3	87·8	+2·4	87·2	+1·8	84·3	+0·6
August ..	82·6	+0·6	83·9	+1·1	86·5	+1·1	86·3	+0·9	83·8	+0·1
September	82·4	+0·4	83·5	+0·7	86·3	+0·9	86·1	+0·7	83·6	−0·1
October ..	83·0	+1·0	83·7	+0·9	85·9	+0·5	85·6	+0·2	83·7	0·0
November	82·2	+0·2	83·2	+0·4	86·2	+0·8	85·7	+0·3	84·0	+0·3
December	78·4	−3·6	80·1	−2·7	84·5	−0·9	85·3	−0·1	83·5	−0·2
Year ..	82·0		82·8		85·4		85·4		83·7	

Maxima and Minima of different Meteorological Elements, 1916.

TABLE VIII.—*In which are collected the individual observations in each month of the year which showed the greatest and the least values of the following elements,* viz., *height of barometer corrected for temperature, temperature of air, pressure of vapour and additional capacity of air.*

1916	Height of Barometer.			Temperature of Air.			Pressure of Vapour.			Additional Capacity.		
Month.	Greatest.	Least.	Range.	Greatest.	Least.	Range.	Greatest.	Least.	Range.	Greatest.	Least.	Range.
	in.	in.	in.	°	°	°	in.	in.	in.	in.	in.	in.
January ..	30·115	29·853	0·262	87·9	65·6	22·3	0·795	0·406	0·389	0·843	0·053	0·790
February ..	·057	·768	·289	83·5	59·9	23·6	·776	·195	·581	·732	·056	·676
March ..	29·986	·737	·249	91·6	71·1	20·5	·955	·366	·589	1·116	·040	1·076
April ..	·939	·695	·244	91·2	76·4	14·8	1·027	·622	·405	0·714	·123	0·591
May ..	·909	·518	·391	92·5	78·3	14·2	·093	·681	·412	·599	·110	·489
June ..	·787	·400	·387	89·4	76·6	12·8	·079	·748	·331	·370	·034	·336
July ..	·821	·524	·297	87·6	75·6	12·0	·056	·825	·231	·344	·020	·324
August ..	·827	·485	·342	86·2	75·9	10·3	0·990	·839	·151	·352	·025	·327
September ..	·802	·511	·291	87·4	75·9	11·5	1·019	·773	·246	·341	·025	·316
October ..	·949	·614	·335	88·0	74·9	13·1	·063	·736	·327	·431	·046	·385
November ..	30·056	·580	·476	87·4	74·2	13·2	0·998	·512	·486	·560	·063	·497
December ..	·031	·807	·224	87·9	66·5	21·4	·858	·345	·513	·735	·080	·655
Year ..	30·115	29·400	0·715	92·5	59·9	32·6	1·093	0·195	0·898	1·116	0·020	1·096

Relative Humidity of the Air, 1916.

TABLE IX*a*.—*Daily and monthly means of observations taken at 6, 10, 14, 16 and 22 hours daily.*

Complete saturation = 1·000.

1916	Month.											
Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1 ..	0·673	0·747	0·590	0·662	0·760	0·809	0·789	0·944	0·815	0·845	0·786	0·689
2 ..	·641	·735	·509	·667	·722	·860	**·781**	·946	·800	·814	·730	·702
3 ..	**·566**	·669	·599	·758	·702	·822	·796	**·950**	·823	·799	·783	·678
4 ..	·687	·699	**·478**	·697	·755	·853	·826	·930	·830	·845	·758	·728
5 ..	·739	·552	·678	·756	·753	·856	·852	·897	·891	·794	·733	·683
6 ..	·774	·546	·727	·671	·730	·814	·863	·888	·860	·831	·738	·717
7 ..	·735	·492	·836	**·642**	·710	·903	·855	·906	·846	·812	·816	·674
8 ..	·702	·534	·834	·725	**·696**	·871	·874	·883	·881	·817	**·848**	·722
9 ..	·691	·576	**·846**	·756	·730	**·933**	·923	·865	·926	·797	·811	·703
10 ..	·598	**·477**	·808	·739	·758	·927	·922	·841	·920	·805	·764	·672
11 ..	·637	·653	·835	·693	·758	·813	·931	·816	·933	·829	·691	·698
12 ..	·687	·715	·832	·704	·773	**·773**	·911	·852	·895	·836	·703	·709
13 ..	·617	·711	·828	·743	·737	·786	**·940**	·851	·921	·849	·737	·684
14 ..	·638	·593	·830	·705	·714	·787	·911	·856	·854	·874	·751	·632
15 ..	·666	·625	·822	·712	·723	·809	·899	·886	·853	·871	·757	·676
16 ..	·656	·633	·806	·751	·736	·830	·884	·877	·893	·856	·748	·708
17 ..	·631	·648	·810	**·778**	·763	·847	·901	·876	·918	·827	·791	·675
18 ..	·615	·650	·589	·776	·774	·864	·864	·864	·924	·790	·770	·646
19 ..	·639	·768	·632	·743	·799	·850	·877	·839	·878	·800	·720	·700
20 ..	·684	·769	·721	·687	·775	·927	·842	·821	**·945**	·852	·700	**·757**
21 ..	·707	·783	·708	·700	·778	·843	·853	·839	·864	·811	**·714**	·748
22 ..	·723	·790	·691	·687	·781	·847	·847	·839	·859	·831	·741	·709
23 ..	·588	**·795**	·676	·760	**·801**	·805	·844	·829	·855	·876	·659	·661
24 ..	·658	·710	·737	·759	·768	·807	·844	·833	·828	·876	**·648**	·612
25 ..	·688	·752	·775	·746	·782	·805	·856	**·808**	·801	·823	·821	·612
26 ..	·713	·716	·781	·753	·738	·820	·829	·816	·859	·875	·826	**·596**
27 ..	·749	·755	·699	·711	·743	·802	·889	·821	·838	·898	·827	·601
28 ..	·737	·727	·697	·739	·756	·790	·927	·822	·836	**·907**	·808	·637
29 ..	·789	·712	·717	·750	·759	·835	·901	·825	·830	·831	·818	·677
30 ..	·776		·702	·747	·759	·792	·895	·817	**·785**	·837	·737	·646
31 ..	**·800**		·748		·737		·908	·812		**·770**		·624
Monthly Mean ..	0·684	**0·674**	0·727	0·724	0·751	0·836	**0·872**	0·860	0·865	0·835	0·758	0·677
Annual Variation ..	−·088	−·098	−·045	−·048	−·021	+·064	+·100	+·088	+·093	+·063	−·014	−·096

Annual mean .. .. 0·772.

Extent of cloudy Sky, 1916.

TABLE IX*b*.—*Daily and monthly means of observations taken at 6, 10, 14, 16 and 22 hours daily, the whole sky being reckoned as 10·0.*

1916	Month.											
Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1 ..	1·4	1·4	1·4	2·4	3·2	8·2	6·2	**10·0**	6·0	5·8	6·0	4·4
2 ..	0·2	0·4	0·2	2·4	2·0	9·2	**5·6**	9·8	5·0	4·2	4·0	2·0
3 ..	0·4	..	0·2	1·6	1·6	**5·6**	7·2	10·0	6·4	5·0	1·2	0·8
4 ..	0·4	4·2	..	0·4	**0·4**	**10·0**	9·0	9·4	8·4	7·0	3·0	1·2
5 ..	1·8	1·0	..	3·2	0·6	7·2	9·8	9·8	9·4	5·2	0·8	1·8
6 ..	1·0	**5·8**	..	2·4	2·2	8·2	7·4	9·8	7·4	7·0	3·4	2·4
7 ..	0·4	~1·6	4.4	..	1·4	9·6	9·0	10·0	7·4	6·6	4·4	..
8 ..	..	0·2	2.2	2·0	1·6	9·0	**10·0**	8·8	9·6	3·4	2·4	0·2
9 ..	..	..	4.6	3·6	2·6	10·0	10·0	9·6	**10·0**	3·0	5·2	..
10 ..	..	..	1·0	**8·4**	2·4	9·6	10·0	9·4	9·6	3·6	6·4	0·6
11 ..	..	..	**5·4**	1·4	1·0	10·0	10·0	7·6	10·0	2·8	2·2	..
12 ..	..	1·8	0·6	..	1·8	8·0	10·0	9·4	9·6	**2·2**	0·2	..
13 ..	0·4	4·4	1·4	..	2·0	8·4	10·0	9·0	9·2	4·6	0·2	..
14 ..	3·6	0·4	0·2	3·2	4·0	7·6	10·0	10·0	4·6	6·2	0·6	..
15 ..	**6·2**	..	2·4	2·2	2·8	9·6	10·0	10·0	5·2	4·2	0·8	..
16 ..	..	1·4	1·2	1·6	3·0	8·8	10·0	9·4	8·2	4·6	1·8	..
17 ..	..	0·4	2·0	1·8	4·0	9·6	10·0	8·4	9·8	5·6	2·6	..
18 ..	..	..	0·4	5·6	4·4	8·2	9·4	8·0	9·0	8·8	0·2	..
19 ..	1·0	..	..	4·0	7·4	9·0	8·6	7·2	9·2	6·6	1·0	..
20 ..	..	2·0	..	0·8	6·2	10·0	9·4	6·6	9·8	7·2	..	..
21 ..	1·0	2·6	..	0·6	6·8	10·0	7·2	8·2	4·4	4·2	..	1·2
22 ..	..	..	..	**1·6**	5·4	9·4	5·6	9·0	**7·2**	5·0	..	0·8
23 ..	..	..	..	1·6	7·4	9·0	6·8	8·6	8·6	7·6	4·0	4·4
24 ..	0·4	0·2	0·2	..	7·4	9·6	9·0	7·6	7·6	5·6	5·8	2·2
25 ..	..	..	0·6	..	8·2	8·8	8·8	7·0	5·8	9·0	7·0	..
26 ..	0·2	..	4·2	1·0	4·6	7·2	7·2	8·6	8·4	8·2	**7·2**	..
27 ..	..	3·0	1·6	2·0	4·8	7·6	10·0	5·8	6·4	**9·2**	6·2	2·0
28 ..	..	1·2	..	1·6	4·6	7·6	10·0	7·6	8·4	8·4	1·6	2·4
29 ..	..	1·2	..	2·4	5·2	9·8	9·0	5·2	7·0	6·6	1·2	3·2
30 ..	..		2·8	0·4	**8·8**	6·4	10·0	**4·6**	**3·2**	3·8	4·4	2·4
31 ..	0·8		2·4		7·2		9·4	5·0		·6·0		0·4
Monthly Mean ..	0·6	1·1	1·3	2·0	4·0	8·7	**8·9**	8·4	7·7	5·7	2·8	1·0
Annual Variation ..	−3·7	−3·2	−3·0	−2·3	−0·3	+4·4	+4·6	+4·1	+3·4	+1·4	−1·5	−3·3

For the days which have no entry 0·0 is to be understood.

Mean of the months from January to April, November and December .. 1·5

Mean of the months from May to October .. .. 7·2

Mean of the year .. .. .. 4·3

Meteorological data, 1916.

TABLE X.—*Five-day means.*

Number of Five-day Period.	Barometric Pressure.	Temperature of the Air.	Pressure of Vapour.	Additional Capacity of the Air.	Rainfall.*	North or South Component of Wind.	East or West Component of Wind.	Number of Five-day Period.	Barometric Pressure.	Temperature of the Air.	Pressure of Vapour.	Additional Capacity of the Air.	Rainfall.*	North or South Component of Wind.	East or West Component of Wind.
	In.	°	In.	In.	In.	Miles.	Miles.		In.	°	In.	In.	In.	Miles.	Miles.
1 ..	29·962	73·5	0·570	0·262	..	3·9 N	1·1 W	38 ..	29·663	81·2	0·929	0·138	5·29	0·5 S	2·0 W
2 ..	·960	74·2	·605	·248	..	3·6 N	0·4 W	39 ..	·672	78·9	·905	·081	7·08	**3·9 S**	1·7 W
3 ..	**30·023**	77·6	·643	·312	..	3·0 N	**1·9 E**	40 ..	·695	80·8	933	·117	1·09	3·0 S	0·8 W
4 ..	29·955	75·7	·592	·305	..	2·1 N	0·6 E	41 ..	·629	83·3	·971	·169	0·69	0·8 S	0·9 W
5 ..	·948	74·7	·593	·272	..	5·9 N	1·1 W	42 ..	·607	81·1	·943	·123	6·94	2·8 S	3·3 W
6 ..	·944	75·8	·685	·213	..	2·9 N	1·8 W	43 ..	·586	78·9	·912	**.076**	**14·45**	1·7 S	7·7 W
7 ..	·912	74·6	·640	·217	..	6·6 N	3·5 W	44 ..	·686	80·2	·926	·105	1·97	1·1 S	8·4 W
8 ..	·910	**70·0**	**·414**	·326	..	**7·2** N	1·9 W	45 ..	·734	81·6	·909	·170	0·80	2·2 S	10·0 W
9 ..	·922	73·0	·527	·290	..	3·4 N	2·1 W	46 ..	·672	80·6	·914	·133	2·61	2·6 S	**11·5 W**
10 ..	·897	72·5	·533	·270	..	3·6 N	2·5 W	47 ..	·723	81·6	·905	·173	0·55	1·8 S	10·0 W
11 ..	·890	74·0	·656	·189	..	3·7 N	2·4 W	48 ..	·751	82·0	·907	·192	0·51	0·5 S	7·9 W
12 ..	·900	76·1	·657	·247	..	6·2 N	3·6 W	49 ..	·752	82·4	·911	·197	0·16	0·2 S	3·2 W
13 ..	·847	79·3	·628	**·381**	..	5·0 N	2·2 W	50 ..	·682	81·9	·934	·159	1·71	1·5 N	1·3 W
14 ..	·838	79·1	·841	·158	..	1·5 S	1·1 W	51 ..	·628	79·6	·924	·087	5·56	1·3 N	1·9 W
15 ..	·846	80·8	·889	·167	..	0·7 S	1·8 W	52 ..	·691	79·7	·908	·107	2·48	2·4 S	2·0 W
16 ..	·861	80·5	·737	·308	..	3·5 N	4·1 W	53 ..	·676	79·6	·898	·113	3·37	0·6 N	5·1 W
17 ..	·826	81·6	·802	·281	..	1·6 N	2·8 W	54 ..	·718	80·3	·861	·173	1·43	1·0 S	2·1 W
18 ..	·853	80·9	·770	·289	..	4·2 N	5·4 W	55 ..	·758	80·4	·853	·185	0·13	1·4 S	1·5 W
19 ..	·800	81·9	·783	·309	0·04	6·5 N	5·2 W	56 ..	·799	80·2	·844	·187	0·65	0·8 S	1·6 W
20 ..	·852	82·9	·814	·316	..	4·2 N	4·0 W	57 ..	·864	80·6	·862	·185	..	2·7 N	2·0 W
21 ..	·799	84·4	·860	·326	..	4·4 N	4·4 W	58 ..	·787	81·4	·922	·156	1·55	2·5 N	0·1 W
22 ..	·788	82·8	·856	·267	..	0·8 N	4·1 W	59 ..	·724	82·2	·910	·193	0·39	1·2 S	1·8 E
23 ..	·776	82·7	·828	·295	..	3·4 N	5·0 W	60 ..	·758	80·5	·917	·125	1·52	0·8 N	0·6 W
24 ..	·797	82·4	·826	·285	..	4·9 N	5·5 W	61 ..	·742	80·5	·877	·167	0·59	0·5 N	0·1 E
25 ..	·762	83·8	·865	·297	..	2·0 N	4·1 W	62 ..	·772	80·3	·787	·252	..	3·8 N	2·0 W
26 ..	·836	83·5	·843	·307	..	2·1 N	5·6 W	63 ..	·857	80·3	·829	·209	0·72	1·5 N	0·4 E
27 ..	·764	83·8	·869	·293	..	3·3 N	6·4 W	64 ..	·938	80·6	·797	·256	..	2·3 N	0·9 E
28 ..	·728	84·8	·937	·265	..	1·8 N	4·8 W	65 ..	·923	80·4	·794	·248	..	2·2 N	0·8 E
29 ..	·641	86·5	**1·003**	·261	..	1·3 S	3·2 W	66 ..	·811	79·1	·753	·246	..	1·5 N	1·7 E
30 ..	·722	**87·2**	0·990	·304	0·07	0·0	4·8 W	67 ..	·881	79·9	·799	·225	..	3·6 N	0·5 W
31 ..	·648	84·2	·969	·207	1·76	3·8 S	1·6 W	68 ..	·880	79·0	·716	·280	..	3·1 N	0·4 E
32 ..	**·502**	82·0	·965	·133	11·50	1·5 S	1·4 W	69 ..	·917	77·2	·670	·269	..	1·5 N	1·3 E
33 ..	·524	83·6	·955	·199	1·52	1·0 S	9·2 W	70 ..	·932	76·4	**·642**	·273	..	2·2 N	1·4 E
34 ..	·571	82·3	·926	·180	3·00	2·9 S	5·6 W	71 ..	·904	74·3	·610	·244	..	2·9 N	0·2 W
35 ..	·568	82·5	·942	·173	3·45	2·4 S	8·7 W	72 ..	·907	75·6	·569	·320	..	3·0 N	0·4 E
36 ..	·703	83·7	·943	·214	2·32	1·8 S	10·1 W	73 ..	·910	73·0	·529	·288	..	2·7 N	1·4 E
37 ..	·728	84·1	·938	·231	0·05	1·6 S	5·6 W								

* Five-day sums, *not means*.

TABLE Ia.—*Daily and monthly means.*

Height of the Barometer above mean sea level = 37 feet.

1917 Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
1 ..	29·952	29·869	29·808	29·804	29·746	29·719	29·654	29·669	29·673	29·676	29·838	29·988
2 ..	·929	·840	·798	·778	·747	·686	·697	·686	·671	·693	·865	·975
3 ..	·932	·821	·773	·800	·766	·649	·697	·685	·651	·676	·903	·908
4 ..	·957	·900	·778	·803	·744	·622	·695	·704	·621	·638	·917	·893
5 ..	·976	·921	·801	·804	·779	·629	·718	·693	·642	·643	·908	·911
6 ..	·975	·899	·809	·792	·809	·644	·731	·678	·661	·676	·915	·901
7 ..	·992	·931	·818	·776	·786	·671	·736	·628	·682	·718	·918	·869
8 ..	30·004	·969	·788	·774	·787	·702	·714	·589	·638	·780	·882	·835
9 ..	·028	·985	·814	·801	·831	·681	·646	·637	·645	·828	·861	·859
10 ..	·045	·984	·853	·831	·835	·603	·608	·687	·714	·856	·843	·878
11 ..	·022	·965	·853	·856	·806	·546	·645	·740	·750	·849	·819	·839
12 ..	29·980	·960	·825	·812	·808	·553	·699	·737	·764	·835	·815	·833
13 ..	·937	·958	·809	·801	·807	·470	·738	·718	·719	·842	·830	·907
14 ..	·943	·942	·855	·825	·816	·477	·683	·743	·721	·852	·841	·930
15 ..	·932	·940	·873	·814	·804	·592	·612	·762	·702	·845	·866	·943
16 ..	·939	·942	·865	·797	·806	·711	·598	·766	·716	·823	·847	·922
17 ..	·959	·905	·863	·809	·811	·699	·614	·748	·746	·763	·841	·886
18 ..	·943	·844	·883	·789	·837	·643	·636	·714	·746	·739	·847	·913
19 ..	·921	·805	·878	·813	·880	·630	·601	·652	·749	·735	·870	·977
20 ..	·880	·823	·830	·798	·883	·650	·586	·611	·784	·750	·869	·972
21 ..	·892	·861	·835	·804	·849	·665	·576	·623	·784	·746	·912	·944
22 ..	·931	·861	·863	·799	·829	·666	·585	·643	·782	·701	·950	·928
23 ..	·926	·824	·887	·798	·835	·658	·614	·713	·768	·711	·921	·932
24 ..	·930	·804	·863	·802	·836	·659	·652	·783	·738	·693	·903	·927
25 ..	·917	·807	·881	·809	·826	·642	·635	·772	·721	·665	·903	·890
26 ..	·932	·783	·927	·818	·802	·598	·618	·752	·704	·683	·906	·872
27 ..	·923	·750	·894	·802	·792	·577	·654	·709	·723	·747	·890	·875
28 ..	·906	·779	·901	·802	·766	·568	·674	·692	·699	·776	·913	·859
29 ..	·889		·960	·780	·715	·597	·674	·703	·619	·794	·952	·881
30 ..	·880		·923	·766	·694	·619	·671	·697	·604	·807	·981	·895
31 ..	·890		·863		·726		·651	·685		·808		·944
Monthly Mean ..	29·944	29·881	29·851	29·802	29·799	29·628	29·655	29·697	29·705	29·753	29·884	29·906
Annual Variation ..	+·152	+·089	+·059	+·010	+·007	−·164	−·137	−·095	−·087	−·039	+·092	+·114

Annual mean .. .. In. 29·792

TABLE Ib.—*Mean diurnal inequality for each month of the year and for the whole year.*

Unity = 0·001 inch.

1917 Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
h. m.													
0 7	+ 3	+ 6	+ 4	+ 7	+ 6	+ 8	+ 6	+11	+14	0	− 1	+ 5	+ 6
1 7	− 6	− 5	−11	− 5	− 8	−10	−12	− 4	− 2	−15	−13	− 4	− 8
2 7	−17	−21	−24	−19	−19	−24	−26	−21	−16	−27	−24	−17	−21
3 7	−24	−27	−30	−27	−22	−28	−32	−29	−26	−30	−29	−25	−27
4 7	−25	−27	−28	−24	−16	−28	−33	−27	−25	−28	−26	−23	−26
5 7	−15	−16	−14	−10	− 4	−20	−25	−19	−17	−15	−14	−13	−15
6 7	+ 1	+ 1	+ 6	+ 6	+12	− 3	−11	− 9	− 5	0	+ 4	+ 2	− 0
7 7	+23	+24	+28	+28	+32	+14	+ 5	+12	+16	+23	+25	+24	+21
8 7	+48	+47	+49	+51	+46	+29	+20	+30	+33	+40	+43	+48	+40
9 7	+64	+67	+63	+63	+57	+36	+30	+41	+44	+54	+58	+63	+53
10 7	+63	+69	+63	+59	+53	+36	+34	+38	+43	+50	+49	+57	+51
11 7	+44	+51	+49	+48	+43	+32	+29	+33	+36	+32	+32	+41	+39
12 7	+14	+19	+22	+27	+23	+21	+19	+19	+17	+ 6	+ 5	+10	+17
13 7	−17	−12	− 7	0	− 3	+ 5	+ 7	0	− 9	−16	−22	−21	− 8
14 7	−40	−38	−34	−28	−28	−14	− 8	−19	−35	−38	−42	−43	−31
15 7	−49	−50	−50	−46	−47	−31	−20	−32	−47	−47	−47	−50	−43
16 7	−48	−51	−53	−55	−59	−39	−30	−42	−50	−44	−45	−50	−47
17 7	−40	−45	−47	−51	−52	−36	−25	−35	−38	−30	−33	−41	−39
18 7	−27	−34	−34	−39	−40	−24	−15	−23	−24	−13	−19	−28	−27
19 7	− 6	−16	−15	−22	−25	− 8	− 2	− 7	− 4	+ 7	+ 2	− 8	− 9
20 7	+11	+ 3	+ 2	− 5	− 6	+ 7	+11	+ 8	+13	+22	+19	+11	+ 8
21 7	+21	+16	+17	+12	+11	+20	+21	+25	+29	+30	+27	+24	+21
22 7	+21	+19	+20	+19	+19	+29	+27	+30	+32	+27	+25	+23	+24
23 7	+12	+14	+16	+16	+17	+22	+21	+26	+25	+18	+18	+16	+18
Range.	113	120	116	118	116	75	67	83	94	101	105	113	100

Temperature of the Air, 1917.

TABLE IIa.—*Daily and Monthly Means.*

1917	Month.											
Date.	January.	February.	March.	April.	May.	June.	July.	August.	September	October.	November.	December.
	°	°	°	°	°	°	°	°	°	°	°	°
1 ..	72·3	76·3	80·4	84·5	81·7	86·0	82·9	82·0	78·8	81·9	76·0	76·4
2 ..	73·6	75·1	80·1	84·3	82·7	86·3	82·2	82·2	77·3	81·8	77·0	74·7
3 ..	74·0	72·9	79·3	82·6	82·6	86·7	82·3	82·5	76·1	79·3	77·6	74·7
4 ..	74·8	73·4	78·7	82·6	82·0	87·0	81·0	81·6	78·8	77·9	77·1	75·4
5 ..	74·8	72·9	78·5	82·3	82·0	82·8	82·1	81·8	80·3	76·2	79·0	76·4
6 ..	76·1	74·1	76·9	82·4	82·9	83·1	83·3	80·8	78·4	77·4	80·6	76·6
7 ..	76·2	76·2	76·6	81·9	83·8	81·4	83·3	79·6	76·3	79·9	79·7	75·5
8 ..	76·0	76·4	77·4	81·4	84·0	80·6	82·7	79·1	79·0	78·9	78·6	74·2
9 ..	76·8	76·6	78·7	80·9	83·8	80·7	83·1	81·5	79·7	78·6	78·3	74·2
10 ..	77·6	74·9	78·3	80·8	83·8	82·2	82·8	79·9	80·0	79·1	77·0	74·5
11 ..	76·5	74·6	77·8	80·9	83·9	79·7	82·6	81·2	79·8	79·9	77·1	75·1
12 ..	76·2	74·6	76·5	80·5	83·6	79·7	83·5	79·7	80·8	81·1	75·8	76·0
13 ..	75·7	78·1	77·7	81·2	83·6	81·7	83·3	79·1	80·5	81·0	75·4	75·3
14 ..	75·9	78·4	78·5	81·3	83·3	81·3	83·6	81·0	81·6	82·0	75·6	74·8
15 ..	76·9	77·2	78·4	80·9	83·4	80·4	83·4	81·7	81·2	81·8	76·3	74·4
16 ..	76·3	77·6	78·5	81·0	83·0	81·4	79·2	81·5	80·2	80·9	76·9	73·9
17 ..	77·8	77·8	78·2	81·2	82·4	82·8	82·9	82·4	80·9	81·2	77·4	73·2
18 ..	77·8	78·3	77·7	80·9	83·6	83·4	83·0	82·5	81·3	81·9	77·2	72·7
19 ..	77·2	78·1	77·0	81·6	84·2	82·6	83·3	82·8	79·6	81·2	77·8	73·5
20 ..	77·9	76·8	77·9	82·3	83·8	83·1	82·1	82·5	78·6	81·8	77·5	73·3
21 ..	77·0	76·0	78·2	82·4	83·5	82·6	77·8	81·3	80·7	82·6	78·5	74·0
22 ..	75·6	77·3	78·3	81·9	83·1	82·0	81·8	79·6	81·3	81·4	79·2	76·2
23 ..	75·3	76·2	78·4	81·2	83·6	83·3	82·0	77·4	82·2	79·7	79·4	76·7
24 ..	74·7	75·6	78·6	81·8	83·8	83·3	82·5	77·5	82·2	80·9	76·9	76·6
25 ..	73·6	76·0	78·2	82·9	83·9	81·5	82·1	77·9	80·5	80·2	75·6	75·6
26 ..	74·0	76·0	78·2	83·6	84·5	79·5	82·1	78·1	80·9	77·1	76·4	74·8
27 ..	74·2	76·5	78·9	83·4	85·2	82·5	81·2	77·8	80·9	76·7	77·0	73·4
28 ..	74·0	79·2	80·1	82·8	85·5	81·4	81·3	77·8	79·5	76·7	77·2	71·6
29 ..	73·5		82·5	82·7	85·4	81·4	81·9	78·3	79·6	77·7	78·3	71·4
30 ..	74·3		84·8	82·1	85·6	81·8	82·1	77·4	77·4	77·5	77·4	70·9
31 ..	75·1		83·8		86·2		82·2	77·8		76·0		72·0
Monthly Mean.	75·5	76·2	78·8	82·0	83·7	82·4	82·2	80·2	79·8	79·7	77·5	74·4
Annual Variation.	−3·9	−3·2	−0·6	+2·6	+4·3	+3·0	+2·8	+0·8	+0·4	+0·3	−1·9	−5·0

Annual mean .. .. 79·4

TABLE IIb.—*Mean diurnal inequality for each month of the year and for the whole year.*

1917	Month.												
Bombay Civil Time.	January.	February.	March	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
h. m.	°	°	°	°	°	°	°	°	°	°	°	°	°
0 2	−2·4	−2·3	−2·1	−1·9	−2·2	−0·9	−0·9	−0·6	−1·1	−1·3	−2·6	−2·3	−1·7
1 2	−2·9	−2·5	−2·3	−2·2	−2·6	−1·0	−0·9	−0·6	−1·2	−1·6	−3·1	−2·7	−2·0
2 2	−3·3	−2·9	−2·6	−2·6	−2·8	−1·2	−1·0	−0·6	−1·2	−1·7	−3·4	−3·1	−2·2
3 2	−3·6	−3·4	−3·0	−2·9	−3·0	−1·2	−1·0	−0·9	−1·3	−2·1	−3·7	−3·6	−2·5
4 2	−3·8	−3·7	−3·5	−3·2	−3·2	−1·2	−1·1	−1·1	−1·6	−2·3	−4·0	−3·9	−2·7
5 2	−4·4	−4·1	−4·0	−3·5	−3·4	−1·3	−1·3	−1·2	−1·6	−2·3	−4·2	−4·2	−3·0
6 2	−4·7	−4·5	−4·4	−3·6	−3·4	−1·6	−1·2	−1·3	−1·7	−2·6	−4·6	−4·6	−3·2
7 2	−4·7	−4·5	−3·9	−2·4	−2·2	−1·1	−0·9	−1·1	−1·4	−2·1	−4·2	−4·6	−2·8
8 2	−3·6	−3·0	−1·8	−0·8	−1·0	−0·5	−0·5	−0·6	−0·7	−1·2	−2·9	−3·3	−1·7
9 2	−1·7	−1·4	−0·1	+0·6	+0·5	+0·4	+0·3	−0·3	0·0	−0·1	−1·1	−1·4	−0·4
10 2	+0·6	+0·6	+1·6	+2·0	+1·8	+1·1	+0·8	+0·4	+0·7	+0·9	+1·3	+0·8	+1·0
11 2	+2·9	+2·6	+3·1	+3·1	+2·8	+1·2	+1·5	+1·3	+1·3	+1·9	+3·2	+2·9	+2·3
12 2	+4·8	+4·1	+4·4	+3·8	+4·0	+1·7	+1·6	+1·5	+1·9	+2·9	+4·8	+4·8	+3·4
13 2	+5·7	+5·1	+5·0	+4·3	+4·4	+1·9	+2·0	+1·7	+2·3	+3·4	+5·7	+6·0	+4·0
14 2	+6·1	+5·5	+5·0	+4·4	+4·4	+2·0	+2·3	+1·6	+2·5	+3·6	+5·9	+6·2	+4·1
15 2	+6·1	+5·5	+4·8	+4·3	+4·4	+1·9	+1·9	+1·6	+2·5	+3·3	+5·6	+5·8	+4·0
16 2	+5·2	+4·7	+3·9	+3·4	+3·7	+1·5	+1·2	+1·3	+2·0	+2·7	+4·5	+4·8	+3·2
17 2	+3·5	+3·3	+2·7	+2·3	+2·4	+1·0	+0·7	+0·9	+1·4	+1·5	+2·7	+3·0	+2·1
18 2	+2·0	+1·7	+1·0	+0·5	+0·7	+0·3	0·0	+0·3	+0·5	+0·5	+1·6	+1·8	+0·9
19 2	+1·2	+0·9	+0·2	−0.3	−0·3	−0·1	−0·3	−0·1	0·0	−0·2	+1·0	+1·2	+0·3
20 2	+0·7	+0·6	−0·2	−0·7	−0·7	−0·5	−0·3	−0·2	−0·3	−0·6	+0·3	+0·7	−0·1
21 2	0·0	−0·2	−0·7	−1·1	−1·1	−0·6	−0·5	−0·5	−0·5	−0·8	−0·5	−0·1	−0·5
22 2	−0·9	−1·0	−1·1	−1·4	−1·5	−0·8	−0·7	−0·6	−0·9	−1·0	−1·3	−1·0	−1·0
23 2	−1·8	−1·8	−1·7	−1·7	−1·8	−0·9	−0·8	−0·7	−1·1	−1·3	−2·1	−1·9	−1·5
Range.	10·8	10·0	9·4	8·0	7·8	3·6	3·6	3·0	4·2	6·2	10·5	10·8	7·3

TABLE IIc.—*Showing the maximum temperature of the air on each day during the year 1917.*

1917. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	°	°	°	°	°	°	°	°	°	°	°	°
1 ..	80·9	83·6	91·4	91·6	89·0	92·2	86·9	85·6	81·9	85·2	84·0	85·3
2 ..	83·3	80·9	90·5	91·5	90·3	92·4	85·2	86·1	78·8	85·8	85·1	84·4
3 ..	82·3	78·5	87·1	88·1	89·1	92·5	85·5	85·2	77·2	84·2	86·4	82·8
4 ..	83·4	79·7	86·2	88·1	88·1	92·4	84·1	83·8	81·6	79·0	85·2	85·0
5 ..	82·6	81·4	84·2	88·4	88·7	89·2	86·3	85·5	84·5	77·6	87·0	86·1
6 ..	83·4	85·1	83·7	89·1	89·0	89·1	87·1	84·4	81·5	80·6	87·2	85·6
7 ..	83·2	84·0	83·9	89·2	90·4	84·8	87·2	84·8	79·8	84·0	86·2	82·8
8 ..	83.6	83·1	85·8	88·5	90·0	83·9	85·1	82·2	82·8	83·1	86·3	81·4
9 ..	85.5	83·0	86·5	87·5	89·5	86·1	86·5	84·0	83·1	83·1	86·2	81·8
10 ..	87·7	81·3	85·0	88·2	89·6	87·1	86·1	82·3	84·3	84·8	85·5	82·8
11 ..	84·5	81·2	84·5	87·7	90·0	80·2	87·2	85·3	84·1	85·1	85·0	84·1
12 ..	85·1	82·8	84·4	89·0	90·0	84·1	**87·9**	83·9	84·4	86·2	84·6	83·7
13 ..	84·3	88·4	86·2	88·3	90·3	85·0	87·7	82·2	83·5	89·1	83·3	82·1
14 ..	83·1	87·9	85·2	87·6	90·5	84·0	87·3	84·5	85·2	87·3	83·9	81·9
15 ..	83·9	85·1	85·4	88·0	89·7	82·7	87·2	85·7	85·5	88·1	84·0	82·2
16 ..	85·8	85·1	84·6	87·9	90·2	85·5	80·6	86·0	83·3	87·2	84·3	81·6
17 ..	**88·3**	85·1	84·7	87·7	89·3	87·6	86·5	86·1	85·0	88·5	84·4	80·8
18 ..	87·5	85·4	84·5	87·1	90·2	87·6	87·0	**87·7**	85·3	88·3	84·9	79·8
19 ..	84·4	85·1	84·0	87·6	90·5	87·3	87·0	86·9	83·9	86·9	84·3	80·8
20 ..	86·0	83·5	84·5	88·1	90·9	86·1	84·4	87·4	82·9	87·6	83·9	81·1
21 ..	84·4	83·4	84·5	88·1	90·4	87·1	79·4	84·0	85·1	**89·9**	84·3	82·0
22 ..	83·4	83·7	84·9	88·0	90·2	86·5	85·9	82·9	86·1	88·1	86·0	85·0
23 ..	83·3	84·0	84·7	87·8	90·2	87·9	85·2	80·3	87·5	83·2	87·1	85·9
24 ..	84·9	82·9	85·5	88·5	90·7	88·0	85·9	79·4	**88·3**	85·7	85·3	**86·3**
25 ..	83·9	83·2	85·1	89·1	90·6	85·3	85·3	81·1	87·3	83·1	85·5	85·2
26 ..	82·1	85·0	85·1	89·3	90·4	82·0	85·1	81·2	87·1	78·9	86·0	84·4
27 ..	81·5	85·9	85·3	89·8	90·8	87·1	83·2	80·7	86·0	81·6	86·3	81·9
28 ..	81·1	**89·9**	87·2	90·7	91·6	83·6	83·1	79·2	85·5	83·1	85·4	79·5
29 ..	81·3		89·4	91·0	90·4	84·4	85·5	81·6	83·9	83·9	**87·3**	79·1
30 ..	82·0		92·0	86·2	91·4	85·2	85·9	79·5	78·2	83·6	87·3	80·2
31 ..	83·4		**92·4**		92·0		85·8	81·2		83·6		82·4
Monthly Mean..	83·9	83·9	86·1	88·6	**90·1**	86·6	85·6	83·6	83.8	84·7	85·4	**82·8**

Annual mean .. .. 85·4

The greatest maximum temperature recorded during the year (that of 3rd June) was .. 92·5

TABLE IId.—*Showing the minimum temperature of the air on each day during the year 1917.*

1917. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	°	°	°	°	°	°	°	°	°	°	°	°
1 ..	**65·3**	71·1	71·7	75·8	76·6	81·4	79·4	79·8	76·5	77·1	70·5	**71·3**
2 ..	66·3	72·0	72·3	78·4	78·2	83·0	80·4	79·1	76·5	78·5	72·1	69·3
3 ..	67·8	67·9	71·8	78·6	78·8	83·2	79·4	80·9	**74·0**	75·9	71·4	69·1
4 ..	68·3	69·3	73·7	77·4	75·7	83·3	79·0	80·4	75·4	76·6	71·1	69·4
5 ..	68·1	65·3	74·5	77·9	**75·1**	76·6	76·6	78·1	76·4	74·9	72·7	**70·7**
6 ..	70·5	**64·4**	71·3	77·4	77·4	79·8	80·1	77·6	76·4	74·4	77·0	71·1
7 ..	71·3	70·3	70·1	77·3	79·2	78·9	80·2	78·2	74·4	76·9	75·0	70·7
8 ..	69·7	72·0	**67·7**	77·4	80·1	78·8	79·4	75·6	74·8	76·0	72·1	68·4
9 ..	71·1	73·2	72·3	76·9	79·5	78·4	79·5	78·4	76·2	75·4	74·0	69·3
10 ..	71·3	71·4	74·4	76·4	79·2	78·9	79·4	77·4	76·9	75·6	71·0	68·1
11 ..	71·4	71·1	74·2	76·5	80·2	77·6	79·4	77·4	77·5	76·4	71·3	67·8
12 ..	71·0	68·8	70·1	**75·6**	79·5	**75·8**	79·0	77·4	77·4	77·2	**69·5**	70·7
13 ..	70·1	72·3	71·3	76·4	80·0	77·8	80·1	75·8	77·7	77·4	70·3	70·4
14 ..	70·1	71·7	73·4	77·4	80·0	77·9	80·9	76·4	78·5	77·4	70·4	70·1
15 ..	71·9	71·4	74·0	76·8	79·1	79·1	81·4	**73·4**	78·5	78·2	70·5	69·0
16 ..	70·1	70·9	74·1	75·6	78·4	77·8	76·8	76·6	78·6	76·2	70·9	67·8
17 ..	71·3	71·7	73·2	76·4	76·5	80·6	76·6	79·1	77·5	77·2	71·6	68·1
18 ..	71·9	70·5	72·6	76·2	79·2	78·6	79·5	79·4	78·2	77·4	71·7	69·0
19 ..	72·3	73·9	72·3	76·6	79·6	80·6	80·4	78·8	77·0	77·5	73·1	69·3
20 ..	72·3	71·7	72·4	77·4	80·4	78·4	78·0	79·4	76·3	77·8	74·1	67·7
21 ..	71·9	70·1	73·7	77·5	80·0	78·4	76·5	79·2	77·4	78·4	75·4	68·1
22 ..	70·3	72·9	74·4	77·7	79·5	77·4	**76·2**	75·6	77·8	79·4	74·1	70·0
23 ..	69·1	70·9	74·8	77·4	79·8	80·0	77·4	74·5	79·2	76·7	75·1	70·9
24 ..	67·3	70·0	74·9	78·1	78·9	79·4	79·5	75·2	79·4	78·5	70·9	70·5
25 ..	66·3	70·8	73·3	78·2	78·6	79·2	78·4	75·6	78·5	77·8	70·0	70·2
26 ..	68·3	68·3	73·0	78·8	79·4	77·9	79·2	75·9	76·8	76·4	70·1	68·6
27 ..	69·5	68·1	73·8	79·2	80·6	77·6	77·4	74·8	77·5	72·7	71·1	66·3
28 ..	70·4	70·3	75·6	76·9	**81·1**	78·4	78·0	75·5	75·2	72·1	71·2	65·3
29 ..	66·3		76·5	**77·8**	81·4	78·6	80·0	75·4	78·2	74·1	71·5	64·8
30 ..	69·0		74·0	79·1	82·0	79·0	78·4	75·4	75·2	74·8	71·3	64·2
31 ..	68·8		78·8		82·6		79·0	74·5		**71·2**		**62·7**
Monthly Mean..	69·7	70·4	73·2	77·3	**79·2**	79·1	78·9	77·1	77·0	76·3	72·0	**68·7**

Annual mean .. .. 74·9

The least minimum temperature recorded during the year (that of 31st December) was 62·7

TABLE IIIa.—*Daily and monthly Means.*

1917 Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
1 ..	0·484	0·698	0·642	0·791	0·846	0·933	0·939	0·915	0·926	0·936	0·650	0·647
2 ..	·541	·669	·652	·789	·816	·936	·922	·934	·891	·904	·687	·613
3 ..	·631	·667	·688	·918	·806	·941	·922	·934	·853	·888	·666	·623
4 ..	·677	·586	·766	·844	·786	·951	·909	·929	·903	·901	·661	·650
5 ..	·651	·419	·728	·870	·807	·939	·922	·915	·905	·860	·778	·639
6 ..	·707	·558	·620	·831	·843	·956	·937	·892	·883	·855	·839	·655
7 ..	·704	·664	·602	·785	·864	·935	·918	·888	·858	·874	·781	·651
8 ..	·694	·731	·647	·809	·860	·900	·901	·910	·868	·825	·707	·655
9 ..	·658	·716	·717	·816	·824	·897	·899	·931	·891	·823	·682	·633
10 ..	·654	·617	·736	·807	·831	·932	·912	·896	·888	·825	·652	·645
11 ..	·614	·588	·678	·810	·821	·927	·924	·905	·900	·828	·659	·639
12 ..	·611	·623	·631	·755	·817	·906	·940	·878	·889	·915	·623	·675
13 ..	·611	·677	·722	·762	·805	·948	·942	·885	·909	·910	·572	·635
14 ..	·638	·715	·761	·724	·821	·937	·940	·905	·907	·923	·632	·653
15 ..	·682	·709	·762	·768	·771	·929	·923	·911	·890	·907	·683	·637
16 ..	·678	·681	·772	·820	·777	·926	·904	·904	·853	·887	·724	·606
17 ..	·643	·708	·710	·811	·739	·952	·947	·907	·871	·881	·723	·633
18 ..	·646	·699	·596	·748	·842	·925	·950	·909	·866	·855	·735	·653
19 ..	·686	·748	·619	·718	·869	·929	·930	·904	·872	·829	·718	·657
20 ..	·687	·721	·662	·790	·872	·950	·915	·929	·898	·889	·685	·630
21 ..	·714	·734	·704	·787	·864	·947	·883	·935	·917	·933	·810	·656
22 ..	·678	·753	·748	·765	·850	·948	·953	·921	·906	·934	·816	·682
23 ..	·532	·663	·741	·816	·853	·961	·944	·875	·923	·876	·728	·697
24 ..	·515	·624	·722	·874	·848	·940	·940	·880	·925	·831	·572	·639
25 ..	·562	·603	·693	·890	·816	·925	·936	·887	·921	·876	·616	·589
26 ..	·648	·530	·703	·859	·927	·894	·934	·884	·936	·833	·659	·607
27 ..	·647	·527	·773	·819	·944	·950	·933	·877	·908	·705	·682	·583
28 ..	·611	·581	·825	·828	·940	·924	·919	·875	·896	·705	·660	·494
29 ..	·598		·866	·854	·955	·942	·933	·911	·909	·721	·636	·399
30 ..	·625		·755	·832	·955	·928	·937	·881	·879	·692	·661	·495
31 ..	·627		·822		·931		·931	·898		·608		·566
Monthly Mean.	0·634	0·650	0·712	0·810	0·848	0·934	0·927	0·903	0·895	0·846	0·690	0·623
Annual Variation.	—·155	—·139	—·077	+·021	+·059	+·145	+·138	+·114	+·106	+·057	—·099	—·166

Annual mean .. .. Inch. 0·789

TABLE IIIb.—*Mean diurnal inequality for each month of the year and for the whole year.*

Unity=0·001 inch.

1917 Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
0 2	— 9	—12	—10	+ 1	— 5	— 9	—12	—12	— 9	+ 1	— 6	— 4	— 7
1 2	—12	— 4	— 9	0	—16	—10	—13	—14	—14	— 6	—18	— 7	—10
2 2	— 2	— 3	—13	— 5	—17	—17	—14	—13	—12	— 4	—13	—14	—11
3 2	—21	— 9	— 5	—10	—20	—15	—11	—20	—14	— 4	—26	—22	—15
4 2	—28	—15	—13	—19	—21	—11	—19	—15	—19	—10	—29	—24	—19
5 2	—34	—23	—20	—26	—18	—12	—19	—14	—17	—13	—28	—31	—21
6 2	—36	—24	—22	—11	— 9	—20	—21	—13	—15	—12	—27	—36	—20
7 2	—38	—28	—14	— 1	— 1	—15	—12	— 5	—10	0	—30	—36	—16
8 2	—32	—13	— 1	+ 9	+ 8	— 3	+ 2	— 1	— 2	+12	—24	—30	— 6
9 2	—26	—17	— 1	— 3	+ 4	+ 9	+ 8	+ 5	+ 7	+18	—23	—20	—3
10 2	—21	—14	— 4	+13	+ 6	+15	+19	+22	+18	+21	—12	— 6	+ 5
11 2	—21	—21	—11	+12	+ 7	+14	+25	+35	+23	+14	—16	—15	+ 4
12 2	—30	—13	+ 1	+18	+ 5	+23	+27	+30	+29	+15	—12	—23	+ 6
13 2	—19	— 7	+26	+19	+12	+17	+34	+35	+22	+13	—14	—23	+10
14 2	+ 5	+18	+35	+21	+16	+21	+39	+2·	+24	+16	0	+ 7	+19
15 2	+22	+36	+33	+21	+17	+14	+27	+23	+25	+14	+15	+40	+24
16 2	+41	+36	+23	+12	+16	+10	+ 7	+ 6	+13	— 1	+39	+43	+20
17 2	+42	+34	+12	0	+13	+ 6	+ 3	+ 2	0	— 8	+45	+44	+16
18 2	+52	+26	+ 1	—14	+10	— 5	— 7	— 4	— 4	—12	+51	+48	+12
19 2	+53	+20	—11	—10	0	— 4	—10	—13	—11	—13	+53	+48	+ 8
20 2	+56	+23	— 9	— 6	+ 4	— 2	—14	—12	—10	—12	+41	+39	+ 8
21 2	+47	+21	+ 2	—15	+ 3	— 7	—11	—16	—13	— 7	+24	+24	+ 4
22 2	+15	+ 4	+ 5	— 9	— 1	— 5	—13	—11	— 6	—10	+ 8	+ 9	— 1
23 2	— 1	— 9	— 2	— 2	— 1	— 6	—14	— 9	—11	—11	0	— 8	— 6
Range ..	94	64	57	47	38	43	60	55	48	34	83	84	45

TABLE IV*a*.—*Daily and monthly Means.*

1917	Month.											
Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
1 ..	0·315	0·212	0·408	0·397	0·240	0·314	0·187	0·179	·058	0·153	0·254	0·271
2 ..	·294	·203	·387	·393	·307	·321	·178	·167	·045	·182	·248	·252
3 ..	·217	·144	·318	·200	·310	·335	·180	·176	·048	·114	·289	·240
4 ..	·192	·240	·218	·272	·313	·337	·149	·149	·082	·055	·277	·236
5 ..	·217	·397	·250	·236	·292	·186	·174	·170	·129	·044	·219	·279
6 ..	·198	·297	·308	·281	·287	·178	·202	·161	·089	·085	·206	·268
7 ..	·203	·246	·318	·309	·296	·132	·221	·123	·049	·148	·237	·234
8 ..	·207	·181	·300	·264	·309	·144	·218	·085	·122	·166	·276	·195
9 ..	·271	·201	·270	·242	·336	·149	·234	·145	·125	·157	·293	·216
10 ..	·303	·250	·235	·245	·328	·168	·209	·125	·136	·173	·281	·214
11 ..	·303	·271	·278	·246	·342	·087	·193	·162	·117	·195	·278	·238
12 ..	·298	·238	·285	·294	·336	·108	·211	·137	·165	·150	·276	·224
13 ..	·282	·294	·235	·301	·349	·134	·200	·109	·131	·153	·312	·243
14 ..	·259	·268	·216	·348	·325	·130	·212	·157	·172	·172	·259	·211
15 ..	·247	·229	·215	·286	·375	·110	·220	·173	·176	·181	·230	·217
16 ..	·236	·273	·207	·242	·356	·147	·094	·175	·179	·169	·205	·233
17 ..	·319	·247	·259	·257	·374	·171	·178	·200	·184	·190	·220	·189
18 ..	·314	·276	·358	·311	·313	·221	·180	·204	·203	·238	·202	·154
19 ..	·251	·216	·313	·359	·308	·189	·211	·220	·141	·236	·235	·172
20 ..	·275	·204	·296	·315	·289	·182	·180	·184	·080	·199	·258	·194
21 ..	·218	·175	·268	·324	·285	·167	·071	·134	·134	·185	·167	·189
22 ..	·211	·186	·222	·329	·286	·148	·135	·090	·163	·140	·185	·229
23 ..	·350	·244	·234	·251	·303	·181	·149	·065	·178	·140	·279	·230
24 ..	·352	·265	·258	·215	·313	·201	·170	·068	·176	·223	·359	·285
25 ..	·274	·297	·274	·239	·351	·151	·161	·068	·123	·154	·278	·302
26 ..	·195	·376	·267	·295	·262	·112	·161	·077	·123	·099	·258	·263
27 ..	·200	·396	·216	·328	·269	·164	·132	·077	·148	·214	·263	·244
28 ..	·229	·432	·207	·298	·288	·149	·148	·077	·115	·217	·284	·285
29 ..	·232		·249	·269	·268	·129	·156	·055	·103	·230	·343	·290
30 ..	·227		·445	·266	·275	·159	·160	·058	·061	·252	·285	·266
31 ..	·251		·342		·322		·169	·056		·296		·228
Monthly Mean.	0·256	0·259	0·279	0·287	0·310	0·177	0·176	0·130	0·152	0·171	0·258	0·235
Annual Variation.	+·034	+·037	+·057	—·065	+·088	—·045	—·046	—·092	—·097	—·051	+·036	+·013

Annual mean .. .. In. 0·222

TABLE IV*b*.—*Mean diurnal inequality for each month of the year and for the whole year.*

Unity=0·001 inch.

1917	Month.												
Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December	Year.
H. m.													
0 2	—67	—59	—61	—72	—79	—25	—23	—9	—28	—44	—77	—66	—51
1 2	—78	—73	—69	—80	—81	—27	—21	—6	—29	—48	—77	—74	—55
2 2	—97	—85	—73	—87	—84	—31	—24	—9	—30	—54	—92	—78	—62
3 2	—87	—85	—95	— 96	—90	—32	—28	—13	—33	—65	—87	—82	—66
4 2	—84	—94	—100	—93	—97	—35	—23	—22	—36	—64	—92	—87	—69
5 2	—93	—97	—107	—96	—106	—36	—29	—29	—38	—64	—99	—88	—73
6 2	—99	—103	—116	—114	—114	—39	—25	—32	—43	—72	—110	—93	—80
7 2	—99	—102	—108	—87	—82	—25	—23	—34	—38	—71	—97	—93	—72
8 2	—74	—78	—60	—41	—47	—18	—21	—20	—23	—52	—66	—65	—47
9 2	—30	—29	—7	+21	+11	+3	0	—14	—9	—22	—13	—26	—10
10 2	+32	+28	+52	+54	+58	+22	+9	—9	+6	+8	+47	+22	+27
11 2	+103	+97	+113	+98	+99	+32	+27	+11	+21	+50	+117	+96	+72
12 2	+176	+139	+147	+120	+147	+43	+30	+22	+36	+84	+169	+162	+106
13 2	+195	+170	+144	+137	+158	+53	+39	+27	+57	+107	+203	+204	+124
14 2	+187	+158	+134	+140	+156	+51	+46	+33	+64	+110	+196	+180	+121
15 2	+168	+142	+127	+137	+153	+60	+42	+32	+60	+102	+171	+135	+111
16 2	+116	+113	+103	+111	+126	+45	+33	+41	+54	+94	+105	+97	+86
17 2	+59	+64	+73	+80	+74	+29	+21	+30	+46	+58	+37	+38	+51
18 2	0	+23	+26	+27	+13	+15	+ 6	+13	+19	+27	— 5	—3	+13
19 2	—25	+ 5	+13	—5	—16	— 1	— 2	+ 8	+10	+ 6	—26	—20	—4
20 2	—42	—11	— 3	—23	—35	—18	— 1	+ 5	— 2	— 8	—37	—25	—17
21 2	—55	—30	—29	—28	—46	—17	—9	— 3	— 7	—20	—42	—32	—26
22 2	—48	—39	—47	—42	—55	—25	—13	—11	—26	—23	—52	—43	—35
23 2	—56	—47	—55	—62	—65	—29	—18	—16	—27	—33	—69	—53	—44
Range ..	294	273	263	254	272	92	75	75	107	182	313	297	204

TABLE Va.—*Total fall of rain (in inches) as measured by F. Chambers' self-registering gauge, the funnel of which is 28 feet above the ground.*

1917 Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
1	..	..	..	..	..	0·01	0·21	0·06	1·31	0·09	..	..
2	..	0·06	..	..	..	..	0·08	0·08	1·73	0·10	..	..
3	..	1·40	..	..	..	..	0·02	0·01	2·64	0·84	..	..
4	..	..	..	..	..	..	0·38	0·19	0·86	4·22	..	..
5	..	..	..	..	0·07	2·04	0·12	..	0·02	5·50	..	..
6	..	..	..	..	0·07	..	0·03	0·33	0·52	1·98	..	..
7	..	..	..	..	0·01	0·08	..	1·65	1·73	0·01	..	..
8	..	..	..	..	..	0·11	0·15	1·15	0·20	0·03	..	..
9	..	..	..	..	..	0·17	0·01	0·16	0·21	0·07	..	..
10	..	..	..	..	0·06	..	0·03	0·50	0·06	..	..	..
11	..	..	..	..	..	1·88	0·47	0·22	0·13	..	..	..
12	..	..	..	..	..	1·95	0·01	0·69	..	0·02	..	..
13	..	..	..	..	..	0·49	0·01	1·22	0·14	0·01	..	..
14	..	..	..	..	..	0·70	..	0·60	0·02	..	..	..
15	..	..	..	..	..	0·47	..	0·27	0·19	..	..	..
16	..	..	..	..	..	..	1·70	0·14	0·10	..	..	..
17	..	..	..	..	..	..	0·06	0·40	..	0·20	0·03	..
18	..	..	..	..	..	..	0·09	0·09	0·13	0·02	..	..
19	..	..	..	..	..	..	1·22	..	..	0·15	..	..
20	..	..	..	..	..	..	0·08	0·41	0·01	1·59	0·23	..
21	..	..	..	..	..	..	0·71	5·49	0·42	0·17	..	..
22	..	..	..	..	..	..	0·57	0·12	3·27	..	0·38	..
23	..	..	..	..	..	..	0·06	0·68	3·73	..	0·03	..
24	..	..	..	..	..	..	0·06	0·52	2·69	..	0·03	..
25	..	..	..	..	..	..	0·36	0·14	1·68	0·32	0·32	..
26	..	..	..	..	..	0·11	1·47	0·25	1·81	..	1·56	..
27	..	..	..	..	..	0·04	0·46	0·46	3·01	0·68	..	..
28	..	..	..	..	..	0·40	0·54	0·20	2·22	0·07	..	..
29	..	..	..	..	..	0·01	0·50	0·12	2·40	0·01	..	..
30	..	..	..	..	..	0·05	0·37	0·30	1·62	5·84	..	..
31	..	..	..	..	..	..	..	0·09	2·05	..	..	..
Monthly total ..		1·46				0·82	14·45	12·49	32·31	18·91	15·45	
Number of rainy days.		2				9	24	27	28	25	18	

Total fall of rain in the year .. .. .. 95·89 In.
Total number of rainy days in the year 133
The greatest daily fall of rain in the year (that of 30th September) was .. 5·84 In.
No rain fell in the months of January, March, April, November and December nor on any of the days left blank in the above table.

TABLE Vb.—*Total fall of rain (in inches) as measured by Newman's gauge, placed 4½ feet above the ground.*

1917 Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
1	..	..	..	..	..	0·01	0·21	0·07	1·40	0·09	..	..
2	..	0·08	..	..	..	..	0·08	0·08	1·77	0·11	..	..
3	..	1·60	..	..	..	..	0·02	0·01	2·70	0·88	..	..
4	..	..	..	..	..	..	0·40	0·22	0·89	4·31	..	..
5	..	..	..	..	0·08	2·27	0·12	0·00	0·03	5·73	..	..
6	..	..	..	..	0·08	0·01	0·03	0·35	0·53	2·05	..	..
7	..	..	..	..	0·01	0·10	..	1·69	1·81	0·01	..	..
8	..	..	..	..	..	0·13	0·15	1·18	0·22	0·03	..	..
9	..	..	..	..	..	0·17	0·01	0·17	0·21	0·08	..	..
10	..	..	..	..	0·07	..	0·03	0·50	0·06	..	..	..
11	..	..	..	..	..	1·95	0·49	0·22	0·14	..	..	..
12	..	..	..	..	..	2·06	0·01	0·69	..	0·02	..	..
13	..	..	..	..	..	0·50	0·01	1·24	0·16	0·01	..	..
14	..	..	..	..	..	0·72	..	0·61	0·02	..	..	..
15	..	..	..	..	..	0·49	..	0·27	0·21	..	..	..
16	..	..	..	..	..	..	1·79	0·17	0·11	..	..	..
17	..	..	..	..	..	0·08	0·41	..	0·20	0·03	..	..
18	..	..	..	..	..	0·10	0·11	0·18	0·02	..	..	..
19	..	..	..	..	..	1·29	..	..	0·18	..	..	..
20	..	..	..	..	..	0·08	0·44	0·01	1·63	0·24	..	..
21	..	..	..	..	..	0·79	5·64	0·40	0·18	..	..	..
22	..	..	..	..	..	0·61	0·13	3·36	..	0·41	..	..
23	..	..	..	..	..	0·06	0·75	3·88	..	0·03	..	..
24	..	..	..	..	..	0·08	0·51	2·74	..	0·04	..	..
25	..	..	..	..	..	0·35	0·13	1·72	0·32	0·37	..	..
26	..	..	..	..	0·13	1·51	0·25	1·86	..	1·67	..	..
27	..	..	..	..	0·04	0·49	0·48	3·21	0·73	..	..	..
28	..	..	..	..	0·41	0·56	0·19	2·27	0·08	..	..	..
29	..	..	..	..	0·01	0·52	0·12	2·46	0·02	..	..	..
30	..	..	..	..	0·05	0·40	0·30	1·65	5·96	..	..	..
31	..	..	..	..	..		0·10	2·11	..	..	..	..
Monthly total ..		1·68			0·88	15·33	12·91	33·27	19·58	16·11		
Number of rainy days.		2			9	25	27	28	25	18		

Total fall of rain in the year .. .. 99·76 In.
Total number of rainy days in the year 134
The greatest daily fall of rain in the year (that of 30th September) was .. 5·96 In.
No rain fell in the months of January, March, April, November and December nor or any of the days left blank in the above table.

Velocity of Wind, 1917.

Robinson Beckley's anemograph.

TABLE VIa.—*Mean velocity of the wind in miles per hour, without regard to the direction from which it blew for each day of Bombay Civil Time; also the mean monthly velocity and its variation from the mean of the year.*

1917 Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1 ..	7·2	4·3	6·0	7·0	7·4	6·2	9·3	8·4	5·5	10·3	4·6	5·9
2 ..	5·9	5·5	4·8	7·1	7·7	6·7	9·5	9·5	5·7	9·0	5·6	5·4
3 ..	4·8	8·0	5·6	3·9	6·6	6·0	9·2	7·4	7·0	9·1	7·5	5·5
4 ..	6·1	7·1	6·3	5·1	5·2	3·6	9·1	6·2	9·8	12·1	5·0	5·0
5 ..	4·5	7·3	5·7	4·0	5·2	6·2	7·2	5·8	5·6	12·5	5·5	6·9
6 ..	3·2	4·5	6·5	6·7	5·3	7·0	7·6	4·5	4·1	7·4	6·3	5·3
7 ..	4·0	5·5	6·9	6·6	5·6	8·5	8·7	7·3	3·7	4·6	6·8	4·2
8 ..	4·6	4·7	5·1	6·8	6·3	6·7	12·2	7·6	8·3	5·1	5·8	5·0
9 ..	5·9	6·7	5·6	5·5	5·5	6·2	12·5	10·4	9·2	4·2	7·1	6·2
10 ..	6·7	7·7	6·5	7·1	6·9	5·0	9·7	8·4	4·7	4·7	6·3	6·5
11 ..	6·5	5·7	6·2	9·3	7·2	10·1	7·5	8·4	3·7	5·3	7·1	5·4
12 ..	5·8	7·6	5·1	8·3	5·7	7·7	8·2	10·5	3·4	6·2	6·9	5·9
13 ..	4·3	7·1	5·0	5·5	6·7	7·2	6·3	9·0	4·0	4·3	6·8	7·9
14 ..	4·3	4·2	5·8	6·1	6·6	10·9	7·7	9·2	7·4	3·9	6·4	6·7
15 ..	4·7	5·3	6·1	8·4	7·3	9·3	9·5	7·0	6·2	4·8	5·6	6·1
16 ..	5·7	5·9	6·5	5·5	7·5	8·7	9·0	5·1	6·9	5·0	5·4	6·3
17 ..	6·0	6·9	4·8	5·2	6·5	6·5	11·6	5·8	7·2	5·1	5·8	4·9
18 ..	6·7	7·4	5·8	5·9	6·5	7·2	10·7	6·5	7·1	5·7	4·5	4·9
19 ..	4·1	7·4	6·7	5·2	5·1	10·5	8·1	5·6	7·5	5·3	7·4	5·3
20 ..	3·9	6·9	6·9	4·6	6·4	11·0	8·1	5·6	4·5	5·0	5·4	6·4
21 ..	5·0	4·7	8·2	4·5	8·2	9·5	7·5	5·7	3·9	4·5	4·6	6·2
22 ..	5·7	4·7	7·5	6·3	7·7	8·7	9·8	8·5	5·5	4·6	6·2	5·2
23 ..	8·7	6·3	5·3	6·3	6·8	6·7	9·2	6·7	5·8	9·9	7·6	6·3
24 ..	7·5	5·3	6·0	5·4	5·4	5·5	10·5	7·3	6·4	17·5	7·4	6·8
25 ..	6·3	6·2	6·7	4·5	4·7	5·9	12·6	7·7	5·2	22·8	4·8	6·0
26 ..	5·9	6·3	9·5	6·1	3·9	5·9	14·3	13·3	6·7	7·9	6·2	5·5
27 ..	6·5	6·1	9·5	7·3	5·4	9·0	13·5	14·5	4·0	7·4	6·1	7·1
28 ..	7·2	6·0	5·8	7·9	6·1	7·6	12·3	11·5	5·0	5·1	6·3	8·0
29 ..	5·7		5·2	7·8	6·2	6·8	10·8	7·5	6·4	4·8	6·7	9·7
30 ..	5·8		5·5	8·2	7·0	8·6	11·0	7·5	9·4	4·1	5·8	7·1
31 ..	4·4		4·3		6·5		9·1	5·5		5·3		5·9
Monthly mean.	5·6	6·1	6·2	6·3	6·3	7·5	9·8	7·9	6·0	7·2	6·1	6·1
Annual Variation.	−1·2	−0·7	−0·6	−0·5	−0·5	+0·7	+3·0	+1·1	−0·8	+0·4	−0·7	−0·7

TABLE VIb.—*Showing the mean diurnal inequality of the velocity of the wind in miles per hour for each month of the year 1917, and for the whole year.*

1917 Bombay Civil Time. Hourly intervals.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
0 to 1	−2·1	−1·9	−1·0	−1·4	−0·9	−0·4	−0·4	+0·1	−0·5	−0·2	−1·9	−2·5	−1·1
1 to 2	−1·9	−1·7	−0·4	−1·6	−0·9	−0·5	0·0	0·0	−1·4	−0·4	−2·2	−2·2	−1·1
2 to 3	−1·6	−1·6	−1·3	−2·1	−1·6	−0·2	+0·4	+0·1	−1·0	−0·9	−1·5	−2·0	−1·1
3 to 4	−1·1	−1·1	−1·7	−2·1	−1·7	+0·2	+0·3	−0·1	−0·8	−0·9	−1·0	−1·7	−1·0
4 to 5	−0·6	−0·7	−2·0	−2·2	−2·0	+0·8	+0·2	−0·4	−0·6	−0·9	−0·4	−1·0	−0·8
5 to 6	−0·7	−0·5	−2·6	−2·7	−2·1	+0·7	0·0	+0·3	+0·2	−0·9	+0·2	−0·8	−0·7
6 to 7	−0·3	−0·2	−2·6	−2·9	−1·9	+1·1	−0·1	−0·4	−0·4	−0·6	+0·3	−0·4	−0·7
7 to 8	+0·3	+0·1	−1·9	−2·6	−2·1	+1·1	−0·2	−0·7	+0·2	−0·6	+1·1	−0·4	−0·5
8 to 9	+0·8	−0·2	−1·5	−2·4	−1·9	+0·9	−0·1	−0·9	−0·1	−0·3	+1·0	+0·3	−0·4
9 to 10	+0·4	−0·5	−1·5	−1·5	−1·9	+0·7	+0·1	−1·2	−0·3	0·0	+0·6	+0·2	−0·5
10 to 11	0·0	−0·6	−1·2	+0·3	−1·1	+0·3	+0·5	−1·2	−0·3	−0·3	−0·3	−0·4	−0·4
11 to 12	−1·4	−0·6	−0·1	+1·1	−0·3	0·0	0·0	−0·5	+0·2	−0·7	−0·8	−1·2	−0·4
12 to 13	−0·8	−0·1	+1·6	+1·9	+0·9	−0·1	+0·1	+0·1	+0·1	+0·4	−0·6	−0·7	+0·2
13 to 14	+0·3	+0·8	+3·3	+2·9	+2·1	−0·7	−0·3	+0·9	+0·4	+0·4	0·0	+0·2	+0·9
14 to 15	+1·6	+1·7	+3·9	+3·8	+2·9	+0·1	−0·1	+1·0	+1·0	+0·8	+0·7	+1·4	+1·6
15 to 16	+2·3	+2·3	+4·3	+4·1	+3·6	+0·3	0·0	+1·5	+1·6	+1·5	+1·8	+2·4	+2·1
16 to 17	+2·2	+3·0	+3·8	+3·9	+3·8	−0·3	+0·6	+1·5	+1·5	+1·9	+1·9	+3·1	+2·2
17 to 18	+2·2	+2·7	+3·3	+3·2	+2·7	−0·8	+0·6	+0·9	+0·9	+1·4	+2·4	+3·0	+1·9
18 to 19	+2·2	+2·4	+1·7	+2·5	+2·1	−0·9	+0·2	+0·9	+0·3	+1·3	+2·2	+3·5	+1·5
19 to 20	+1·4	+1·8	+0·7	+1·2	+1·5	−0·3	−0·1	0·0	−0·3	+0·3	+1·6	+3·0	−0·9
20 to 21	+0·9	+0·4	−0·2	−0·5	+0·8	−0·5	−0·5	−0·5	−0·5	−0·1	+0·3	+1·5	−0·1
21 to 22	−0·7	−1·4	−1·7	−1·0	+0·3	−0·3	−1·1	−0·5	+0·2	0·0	−1·0	−0·6	−0·6
22 to 23	−1·5	−1·7	−1·7	−1·3	−0·9	−0·4	−0·7	−0·7	−0·1	−0·5	−1·8	−1·7	−1·1
23 to 24	−1·8	−2·1	−1·7	−1·2	−1·3	−0·3	−0·7	−0·6	−0·4	−0·3	−2·0	−2·3	−1·2
Range ..	4·4	5·1	6·9	7·0	5·9	2·0	1·7	2·7	3·0	2·8	4·6	6·0	3·4

	Miles.
The mean velocity for June to August ..	8·4
The mean velocity for September to May ..	6·2
The mean velocity for the year ..	6·8

Mean Daily Velocities of the North and East Components of the Wind, 1917.

Table VIc.—*Showing the mean velocities of the North or South and East or West components of the winds which blew on each day of the year 1917.*

In Miles per Hour.

1917	Month.																											
Date.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.
1 ..	4·7 N	0·4 E	0·1 S	0·8 W	3·4 N	0·3 E	4·8 N	3·1 W	4·0 N	4·6 W	1·6 N	5·2 W	4·1 S	8·2 W	3·8 S	7·3 W	1·4 S	4·8 W	1·1 N	10·0 W	2·5 N	0·9 E	2·6 N	1·9 E
2 ..	4·1 N	0·9 W	3·4 S	3·1 E	2·1 N	0·5 W	3·4 N	4·0 W	2·5 N	4·4 W	2·3 N	6·2 W	3·4 S	8·8 W	3·7 S	8·7 W	3·0 S	3·9 W	2·4 S	8·4 W	3·2 N	0·8 E	3·0 N	1·1 E
3 ..	2·2 N	0·3 E	4·0 S	3·4 E	3·3 N	2·7 W	1·8 S	1·7 W	0·3 N	3·9 W	0·3 N	6·0 W	3·5 S	8·3 W	3·1 S	6·7 W	1·6 S	3·2 W	1·4 S	8·6 W	3·5 N	4·8 E	2·7 N	0·2 E
4 ..	3·6 N	0·4 E	1·5 N	1·3 E	4·0 N	3·3 W	0·8 S	2·1 W	1·8 S	2·0 W	1·6 S	3·1 W	5·4 S	6·7 W	3·6 S	4·6 W	1·2 S	9·6 W	2·8 S	11·6 W	2·6 N	0·1 W	2·7 N	1·2 E
5 ..	2·5 N	0·1 W	5·8 N	0·3 W	2·3 N	3·8 W	1·5 S	1·6 W	2·0 S	1·2 W	1·5 S	2·3 E	4·9 S	5·1 W	2·8 S	4·5 W	1·2 S	5·3 W	1·3 S	12·2 W	3·3 N	0·2 W	3·7 N	2·6 E
6 ..	1·0 N	0·3 W	2·7 N	0·6 E	3·3 N	3·7 W	1·2 N	3·5 W	0·6 S	3·6 W	5·4 S	1·8 E	3·0 S	7·0 W	1·8 S	3·4 W	1·7 N	3·0 W	2·9 S	6·2 W	4·3 N	0·1 E	1·9 N	1·4 E
7 ..	0·8 N	0·2 W	1·3 S	0·9 E	4·6 N	2·0 W	3·5 N	5·0 W	0·1 S	4·8 W	7·2 S	0·1 E	3·1 S	8·1 W	0·9 S	6·2 W	1·8 N	1·9 W	3·3 S	2·8 W	5·3 N	2·2 W	1·9 N	0·1 W
8 ..	1·5 N	0·4 E	2·0 N	1·3 W	2·4 N	1·7 W	4·2 N	4·3 W	0·2 S	6·2 W	5·1 S	0·2 W	1·4 S	11·9 W	1·1 N	7·3 W	0·3 S	8·2 W	2·3 S	2·7 W	4·0 N	0·6 W	2·9 N	1·0 W
9 ..	2·7 N	1·0 E	5·1 N	3·4 W	2·0 N	2·8 W	2·9 N	4·0 W	0·4 S	5·2 W	4·0 S	0·7 W	3·2 S	11·8 W	0·6 S	10·1 W	2·8 S	8·7 W	1·5 S	0·4 E	3·7 N	2·3 E	4·6 N	0·7 W
10 ..	2·9 N	2·0 E	6·6 N	2·8 W	2·5 N	3·7 W	4·3 N	4·5 W	0·3 S	6·8 W	4·3 S	0·0	3·8 S	8·9 W	1·6 S	7·8 W	2·4 S	3·8 W	0·7 N	1·1 W	4·4 N	0·8 E	5·2 N	0·7 W
11 ..	1·5 N	1·3 E	3·7 N	2·5 W	4·2 N	3·3 W	5·5 N	6·4 W	0·2 N	7·1 W	6·2 S	0·0	3·3 S	6·6 W	1·9 S	7·8 W	3·0 S	1·1 W	3·1 N	3·1 W	4·9 N	0·6 E	3·6 N	0·5 E
12 ..	1·1 N	1·6 E	6·2 N	1·9 W	2·9 N	3·3 W	6·3 N	4·4 W	0·9 N	5·5 W	5·2 S	5·2 W	0·8 S	8·0 W	0·8 N	10·2 W	0·3 S	3·3 W	3·3 N	3·1 W	5·6 N	2·1 W	3·6 N	1·2 W
13 ..	1·6 N	1·0 E	3·2 N	1·6 E	2·5 N	2·4 W	1·9 N	5·1 W	1·3 N	6·2 W	5·9 S	3·6 W	0·3 N	6·2 W	0·8 N	8·6 W	0·6 S	2·8 W	1·2 N	1·6 E	5·0 N	0·2 E	6·6 N	3·2 W
14 ..	2·1 N	0·2 E	1·2 N	0·8 E	2·2 N	4·4 W	2·2 N	5·6 W	1·1 N	6·2 W	10·2 S	2·3 E	1·9 N	7·4 W	1·2 N	8·9 W	0·2 N	7·3 W	0·0	0·1 W	3·7 N	1·6 E	5·5 N	2·5 W
15 ..	0·9 N	0·4 E	3·5 N	1·0 W	3·1 N	4·7 W	4·9 N	5·2 W	2·5 N	5·3 W	8·8 S	2·3 E	0·5 N	9·4 W	1·0 N	6·8 W	0·5 S	6·0 W	1·9 N	0·1 E	3·5 N	0·6 W	5·0 N	1·7 W
16 ..	2·9 N	1·1 E	4·7 N	2·2 W	3·0 N	4·1 W	2·1 N	5·0 W	2·7 N	3·5 W	8·4 S	1·1 E	1·6 S	7·1 W	0·0	5·1 W	0·1 N	6·7 W	2·4 N	0·0	3·7 N	1·9 W	5·1 N	1·6 W
17 ..	2·1 N	1·6 E	5·3 N	2·4 W	1·1 N	3·5 W	0·5 N	4·5 W	2·6 N	3·0 W	5·6 S	2·7 W	0·0	11·6 W	1·4 N	5·5 W	2·4 S	6·8 W	1·2 N	2·1 E	4·4 N	1·6 W	3·3 N	1·4 W
18 ..	4·0 N	1·0 E	6·1 N	3·0 W	1·9 N	5·4 W	1·1 N	4·3 W	1·8 N	3·9 W	2·9 S	6·4 W	0·0	10·7 W	2·6 N	6·0 W	2·5 S	6·6 W	3·5 N	0·1 W	3·3 N	1·5 W	2·8 N	1·5 W
19 ..	1·0 N	0·6 E	5·3 N	3·1 W	2·3 N	3·0 W	0·4 N	5·0 W	0·6 N	4·7 W	3·7 S	9·6 W	0·7 N	8·0 W	0·9 N	5·5 W	1·2 S	4·3 W	2·3 N	1·2 E	6·3 N	3·5 W	2·7 N	0·6 E
20 ..	0·0	1·6 E	4·5 N	3·9 W	4·8 N	3·3 W	0·1 S	4·5 W	2·5 N	5·8 W	2·8 S	10·3 W	0·1 S	7·8 W	1·6 N	3·4 W	0·4 S	0·6 E	2·0 N	1·5 E	3·9 N	3·0 W	4·8 N	0·7 W
21 ..	1·7 N	1·3 W	2·1 N	2·2 W	5·4 N	5·3 W	0·8 S	4·1 W	3·6 N	7·2 W	4·0 S	8·3 W	3·0 N	4·3 W	0·3 N	3·4 W	0·7 S	1·2 W	2·2 N	1·7 E	0·4 N	0·9 W	4·7 N	0·6 W
22 ..	4·3 N	1·5 W	1·6 N	3·0 W	3·5 N	3·8 W	2·4 N	5·6 W	3·4 N	6·9 W	2·3 S	8·2 W	0·2 S	9·1 W	2·8 N	6·6 W	0·1 S	1·1 W	1·1 S	1·3 E	3·0 N	0·2 E	2·4 N	1·6 E
23 ..	7·1 N	1·2 W	2·1 N	1·7 W	1·3 N	4·7 W	3·2 N	3·6 W	2·9 N	6·1 W	3·3 S	5·7 W	1·4 S	8·9 W	0·0	6·2 W	3·6 N	1·7 W	7·4 S	5·3 E	4·0 N	3·2 E	3·3 N	1·1 E
24 ..	6·0 N	0·2 W	2·3 N	1·9 W	3·7 N	3·4 W	1·8 N	4·5 W	0·1 N	5·0 W	4·1 S	3·5 W	2·5 S	10·0 W	0·6 S	7·0 W	4·5 N	1·7 W	14·4 S	9·2 E	3·7 N	3·2 E	3·8 N	1·3 E
25 ..	4·8 N	1·0 W	2·7 N	1·9 W	4·4 N	4·2 W	0·0	2·8 W	0·4 S	4·7 W	4·3 S	3·7 W	3·8 S	11·8 W	1·1 N	7·4 W	2·8 N	0·0	20·1 S	9·9 E	1·6 N	1·6 E	3·9 N	1·0 E
26 ..	4·1 N	1·3 W	3·9 N	2·6 W	6·4 N	4·9 W	3·5 N	3·8 W	1·1 S	2·8 W	2·4 S	2·5 W	4·0 S	13·5 W	1·0 S	13·0 W	2·7 N	1·1 E	2·5 S	2·7 W	3·3 N	2·4 E	2·5 N	1·2 E
27 ..	4·9 N	3·2 W	4·2 N	1·3 W	7·6 N	4·7 W	4·0 N	4·7 W	0·8 S	5·1 W	1·0 S	8·7 W	1·0 S	13·3 W	0·5 S	14·3 W	0·5 S	0·7 E	5·8 N	3·0 W	2·7 N	2·2 E	5·6 N	0·8 W
28 ..	5·4 N	2·4 W	3·1 N	0·4 E	3·7 N	3·8 W	5·1 N	4·8 W	0·6 N	5·9 W	2·2 S	7·2 W	1·4 S	11·8 W	1·8 S	11·0 W	0·1 S	2·6 E	2·5 N	1·3 W	3·2 N	3·5 E	6·5 N	3·1 W
29 ..	3·9 N	2·2 W			2·0 N	1·9 W	4·2 N	4·6 W	0·1 N	6·0 W	3·1 S	5·9 W	0·4 S	10·7 W	1·3 S	7·1 W	5·5 S	2·4 E	2·3 N	1·5 W	3·2 N	4·3 E	8·7 N	2·8 W
30 ..	2·7 N	0·4 W			3·5 N	0·8 W	4·7 N	6·1 W	1·0 S	6·7 W	3·8 S	7·6 W	2·6 S	10·5 W	2·0 S	7·0 W	0·2 N	8·4 W	2·7 N	0·9 W	3·1 N	2·0 E	6·0 N	2·7 W
31 ..	2·4 N	0·2 W			1·7 N	1·4 W			0·0	6·5 W			3·7 S	8·2 W	2·0 S	4·4 W			3·6 N	1·1 E			4·5 N	0·2 W
Monthly mean ..	2·9 N	0·0	2·9 N	1·1 W	3·3 N	3·2 W	2·4 N	4·3 W	0·8 N	5·1 W	3·8 S	3·7 W	1·8 S	9·0 W	0·6 S	7·1 W	0·5 S	3·5 W	0·7 S	1·4 W	3·6 N	0·6 E	4·1 N	0·3 W
Annual variation.	1·9 N	3·2 E	1·9 N	2·1 E	2·3 N	0·0	1·4 N	1·1 W	0·2 S	1·9 W	4·8 S	0·5 W	2·8 S	5·8 W	1·6 S	3·9 W	1·5 S	0·3 W	1·7 S	1·8 E	2·6 N	3·8 E	3·1 N	2·9 E

The velocities of the mean components for the year are 1·0 N and 3·2 W.

TABLE VId.—*Showing the mean diurnal inequality of the velocity of the North or South and East or West components of the wind for each month of the year 1917 and for the whole year.*

In Miles per Hour.

1917.	Month.																								Year.	
	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.			
Bombay Civil Time Hourly intervals.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.
0 to 1	0·6 S	1·4 E	0·1 N	0·9 E	0·3 S	0·5 E	0·0	0·9 E	0·4 N	1·4 E	0·2 S	0·2 E	0·4 S	0·6 E	0·9 S	0·3 W	0 1 S	0·6 E	0·8 S	1·7 E	1·3 S	1·1 E	1·3 S	1·0 E	0·4 S	0·8 E
1 to 2	1·3 S	2·2 E	0·3 S	1·1 E	0·2 N	0·3 E	0·2 N	1·7 E	0·1 N	1·4 E	0·4 S	0·7 E	0·7 S	0·2 W	0·6 S	0·3 W	0·0	0·7 E	0·5 S	1·3 E	1·1 S	1·2 E	1·3 S	1·7 E	0·5 S	1·0 E
2 to 3	1·1 S	2·4 E	1·2 S	2·2 E	0·1 N	1·2 E	0·3 S	2·6 E	0·0	1·5 E	0·0	0·1 W	0·6 S	0·5 W	0·5 N	0·1 W	0·3 S	0·7 E	0·2 S	1·8 E	1·5 S	2·3 E	1·3 S	2·3 E	0·5 S	1·4 E
3 to 4	0·9 S	3·0 E	1·3 S	2·5 E	0·2 S	2·1 E	0·3 S	2·9 E	0·1 N	1·6 E	0·4 S	0·8 E	0·1 S	0·5 W	0·1 S	0·1 W	0·3 N	0·9 E	0·3 S	1·9 E	1·3 S	3·2 E	1·2 S	2·8 E	0·5 S	1·8 E
4 to 5	0·8 S	3·8 E	1·0 S	3·8 E	0·2 S	3·0 E	0·8 S	4·0 E	0·3 N	2·4 E	0·6 S	0·8 E	0·3 S	0·4 W	0·4 N	0·2 E	0·3 N	1·0 E	0·3 N	2·0 E	0·7 S	3·6 E	1·2 S	3·4 E	0·4 S	2·3 E
5 to 6	1·0 S	4·0 E	1·4 S	4·9 E	0·5 S	3·7 E	1·1 S	4·6 E	0·2 N	3·4 E	0·3 N	1·0 E	0·0	0·3 W	0·3 N	0·3 W	0·1 S	1·3 E	0·6 S	2·8 E	0·5 S	4·2 E	1·2 S	3·0 E	0·5 S	2·8 E
6 to 7	1·0 S	4·3 E	1·5 S	4·9 E	1·1 S	4·9 E	1·2 S	4·8 E	0·2 N	4·1 E	0·3 S	0·9 E	0·3 S	0·1 W	0·3 S	0·7 E	0·3 S	2·2 E	0·6 S	2·9 E	0·8 S	4·6 E	1·0 S	4·4 E	0·7 S	3·2 E
7 to 8	1·7 S	5·1 E	2·1 S	6·1 E	1·4 S	5·7 E	1·2 S	5·1 E	0·5 S	4·4 E	0·8 S	1·3 E	0·3 N	0·1 E	0·2 S	1·2 E	0·1 S	2·0 E	0·7 S	3·1 E	0·5 S	5·3 E	1·4 S	4·8 E	0·9 S	3·7 E
8 to 9	1·8 S	5·7 E	2·0 S	5·7 E	1·1 S	5·5 E	1·2 S	4·5 E	0·5 S	3·7 E	0·9 S	1·4 E	0·1 N	0·2 E	0·5 S	1·6 E	0·6 S	2·5 E	0·1 S	2·3 E	0·7 S	5·3 E	1·4 S	5·4 E	0·9 S	3·6 E
9 to 10	1·5 S	5·0 E	2·1 S	4·7 E	0·9 S	4·5 E	0·5 S	2·0 E	0·5 S	2·8 E	0·4 S	0·3 E	0·3 N	0·1 E	0·2 S	1·6 E	0·8 S	1·0 E	0·9 S	1·9 E	1·0 S	4·7 E	1·5 S	5·1 E	0·8 S	2·8 E
10 to 11	1·2 S	3·9 E	0·9 S	2·6 E	1·1 S	2·1 E	0·4 S	0·8 W	1·0 S	0·9 E	0·0	0·3 W	0·2 S	0·4 W	0·1 S	1·3 E	0·8 S	0·9 E	1·3 S	1·0 E	1·3 S	2·9 E	1·5 S	2·7 E	0·8 S	1·4 E
11 to 12	1·2 S	0·8 E	0·8 S	0·9 W	1·1 S	1·8 W	0·5 S	2·1 W	0·6 S	0·5 W	0·6 N	0·7 W	0·1 N	0·1 W	0·1 S	0·4 E	0·5 S	0·8 W	0·6 S	0·8 W	1·5 S	0·8 E	1·6 S	0·4 E	0·6 S	0·4 W
12 to 13	0·8 S	2·3 W	0·4 S	2·1 W	0·3 S	3·6 W	0·0	3·1 W	1·0 S	1·8 W	0·2 N	1·1 W	0 4 N	0·3 W	0·2 N	0·2 W	0·1 N	1·5 W	0·8 S	1·9 W	1·1 S	1·7 W	1·0 S	2·1 W	0·4 N	1·8 W
13 to 14	0·3 S	4·4 W	0·2 N	3·9 W	0·2 N	5·5 W	0·2 N	3·9 W	0·3 S	3·0 W	0·5 N	0·9 W	0·1 S	0·3 E	0·3 N	1·1 W	0·8 N	2·0 W	0·3 N	3·0 W	0·5 S	2·9 W	0·6 S	3·6 W	0·1 N	2·8 W
14 to 15	0·2 N	5·9 W	0·5 N	5·5 W	0·6 N	5·8 W	0·6 N	5·0 W	0·4 S	3·8 W	0·1 S	1·5 W	0·2 N	0·3 W	0·6 N	1·3 W	0·5 N	2·4 W	0·9 N	4·1 W	0·1 N	5·4 W	0·2 N	5·6 W	0·3 N	3·9 W
15 to 16	0·9 N	6·6 W	0·8 N	6·0 W	1·5 N	5·6 W	0·9 N	5·2 W	0·2 S	4·5 W	0·0	1·7 W	0·1 S	0·0	0·1 N	1·8 W	0·2 N	2·8 W	0·9 N	4·4 W	1·0 N	6·6 W	1·0 N	6·2 W	0·6 N	4·8 W
16 to 17	1·3 N	6·4 W	1·6 N	6·4 W	1·9 N	5·0 W	1·5 N	4·8 W	0·0	4·8 W	0·7 N	1·7 W	0·2 N	0·6 W	0·1 S	1·6 W	0·8 N	2·9 W	1·6 N	4·6 W	1·7 N	6·4 W	2·0 N	6·2 W	1·1 N	4·3 W
17 to 18	2·4 N	5·2 W	2·4 N	5·2 W	1·6 N	4·5 W	1·7 N	3·9 W	0·3 N	3·7 W	0·6 N	1·0 W	0·2 N	0·8 W	0·1 S	1·3 W	0·9 N	2·0 W	1·2 N	2·7 W	2·9 N	5·6 W	2·7 N	5·3 W	1·4 N	3·4 W
18 to 19	2·9 N	4·8 W	2·6 N	4·7 W	1·2 N	2·9 W	1·5 N	3·1 W	0·6 N	2·9 W	0·7 N	0·8 W	0·4 N	0·0	0·8 N	1·3 W	1·1 N	1·5 W	1·8 N	2·9 W	3·6 N	4·5 W	3·9 N	4·6 W	1·8 N	2·8 W
19 to 20	2·8 N	3·6 W	3·0 N	3·5 W	1·3 N	1·6 W	1·2 N	1·8 W	0·4 N	2·3 W	0·0	0·3 E	0·1 N	0·1 E	0·5 N	0·4 W	0·3 N	0·5 W	1·4 N	1·7 W	3·3 N	3·8 W	3·8 N	3·9 W	1·5 N	1·9 W
20 to 21	2·7 N	2·8 W	2·3 N	2·0 W	0·4 N	0·9 W	0·5 N	0·2 W	0·7 N	1·5 W	0·4 N	0·3 W	0·4 N	0·4 E	0·8 N	0·4 E	0·1 S	0·0	0·8 N	0·6 W	2·3 N	2·6 W	2·8 N	2·6 W	1·2 N	1·1 W
21 to 22	1·4 N	0·6 W	0·8 N	0·3 W	0·5 S	1·2 E	0·2 N	0·7 E	0·9 N	0·0	0·4 S	0·5 E	0·0	1·0 E	0·3 N	0·1 E	0·5 S	1·0 E	0·2 N	0·2 W	0·9 N	1·1 W	1·1 N	0·4 W	0·4 N	0·2 E
22 to 23	0·7 N	0·2 W	0·5 N	0·5 E	0·5 S	1·0 E	0·0	0·6 E	0·4 N	0·8 E	0·4 S	1·1 E	0·0	0·6 E	0·4 S	0·5 E	0·6 S	1·3 E	0·8 S	1·4 E	0·0	0·5 W	0·1 S	0·5 E	0·1 S	0·6 E
23 to 24	0·2 N	0·3 E	0·0	0·5 E	0·7 S	0·6 E	0·2 S	0·5 E	0·4 N	1·5 E	0·2 S	1·1 E	0·2 S	0·5 E	0·3 S	0·8 E	0·1 N	1·0 E	0·9 S	2·2 E	1·1 S	0·7 E	0·7 S	0·9 E	0·3 S	0·9 E

Aggregate and Mean Velocities and Relative Frequency of Different Winds, 1917.

Table VIe.—*Showing for the year 1917 the sums of the velocities, and the mean velocities, in miles per hour, of the winds which blew in each month, from each of the sixteen principal directions and also the number of hourly observations which those sums comprise, the latter numbers, indicating the relative frequency of the same wiind (as to direction) in the several months, and of different winds during the same month.*

1917	N.			N. N. E.			N. E.			E.N.E.			E.			E.S.E.			S.E.			S.S.E.		
Month.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities	Number of Observations.	Mean Velocity.
	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.
January ..	203	43	4·7	290	70	4·1	220	50	4·4	645	129	5·0	384	73	5·3	224	46	4·9	23	7	3·3	2	1	2·0
February ..	186	44	4·2	249	54	4·6	171	47	3·6	295	59	5·0	119	26	4·6	383	54	7·1	69	13	5·3	84	9	9·3
March ..	149	38	3·9	194	53	3·7	116	32	3·6	239	55	4·3	93	24	3·9	72	20	3·6	8	3	2·7	0	0	0·0
April ..	34	8	4·2	169	46	3·7	46	12	3·8	35	8	4·4	18	7	2·6	32	7	4·6	83	19	4·4	52	11	4·7
May ..	21	2	10·5	39	10	3·9	23	6	3·8	104	19	5·5	5	1	5·0	103	19	5·4	47	13	3·6	27	7	3·9
June ..	0	0	0·0	0	0	0·0	0	0	0·0	38	6	6·3	19	3	6·3	152	15	10·1	102	14	7·3	751	74	10·1
July ..	0	0	0·0	4	1	4·0	0	0	0·0	4	1	4·0	0	0	0·0	32	5	6·4	0	0	0·0	11	2	5·5
August ..	0	0	0·0	0	0	0·0	13	3	4·3	19	6	3·2	0	0	0·0	29	6	4·8	16	3	5·3	16	5	3·2
September ..	18	7	2·6	63	15	4·2	54	14	3·9	145	31	4·7	36	7	5·1	221	28	7·9	146	26	5·6	116	25	4·6
October ..	43	13	3·3	90	23	3·9	162	47	3·4	355	82	4·3	155	42	3·7	241	45	5·4	342	24	14·2	891	58	15·4
November ..	232	54	4·3	170	44	3·9	202	46	4·4	1,456	223	6·5	94	20	4·7	81	13	6·2	0	0	0·0	7	3	2·3
December ..	469	96	4·9	315	78	4·0	183	47	3·9	919	162	5·7	143	31	4·6	48	13	3·7	0	0	0·0	0	0	0·0
Year ..	1,355	305	4·4	1,583	394	4·0	1,190	304	3·9	4,254	781	5·4	1,066	234	4·6	1,618	271	6·0	836	122	6·9	1,957	185	10·6

1917	S.			S.S.W.			S.W.			W.S.W.			W.			W.N.W.			N.W.			N.N.W.			Number of Observations.	
Month.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Calm.	Variable.
	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles		Miles.	Miles.		Miles.		
January ..	0	0	0·0	0	0	0·0	0	0	0·0	16	4	4·0	86	21	4·1	585	95	6·2	894	119	7·5	598	86	7·0	0	0
February ..	7	3	2·3	11	3	3·7	22	9	2·4	9	3	3·0	69	12	5·7	793	123	6·4	1,011	127	8·0	632	86	7·3	0	0
March ..	0	0	0·0	3	1	3·0	0	0	0·0	20	4	5·0	247	47	5·3	1,702	222	7·7	1,364	185	7·4	387	60	6·4	0	0
April ..	6	2	3·0	41	12	3·4	25	8	3·1	156	39	4·0	565	92	6·1	1,889	250	7·6	1,005	144	7·0	358	54	6·6	1	0
May ..	7	1	7·0	16	5	3·2	20	6	3·3	479	88	5·4	2,003	286	7·0	1,456	213	6·8	301	59	5·1	35	8	4·4	1	0
June ..	398	55	7·2	657	103	6·4	636	108	5·9	1,678	213	7·9	644	75	8·6	343	54	6·4	0	0	0·0	0	0	0·0	0	0
July ..	8	2	4·0	64	9	7·1	345	44	7·8	3,206	328	9·8	3,159	298	10·6	336	44	7·6	60	6	10·0	27	4	6·7	0	0
August ..	21	5	4·2	84	20	4·2	176	33	5·3	1,750	213	8·3	2,540	277	9·2	1,114	158	7·1	51	9	5·7	29	6	4·8	0	0
September ..	98	18	5·4	89	23	3·9	74	20	3·7	1,134	165	6·9	1,336	208	6·4	395	59	6·7	299	51	5·9	98	18	5·4	5	0
October ..	102	12	8·5	105	19	5·5	115	24	4·8	633	71	8·9	846	96	8·8	545	78	7·0	492	68	7·2	253	42	6·0	0	0
November ..	5	3	1·7	0	0	0·0	0	0	0·0	3	1	3·0	5	1	5·0	447	78	5·7	775	96	8·1	933	138	6·8	0	0
December ..	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	29	6	4·8	388	64	6·1	1,130	142	8·0	930	105	8·9	0	0
Year ..	652	101	6·5	1,070	195	5·5	1,413	252	5·6	9,084	1,129	8·0	11,529	1,419	8·1	9,993	1,438	6·9	7,382	1,006	7.3	4,280	607	7·1	7	0

Velocity of Wind, 1917.

DINES' ANEMOGRAPH.

TABLE VIf.—*Mean velocity of the wind in miles per hour for each day of Bombay Civil Time; also the mean monthly velocity and its variation from the mean of the year.*

1917 Date	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1 ..	6·4	3·9	5·6	7·0	7·3	5·5	7·6	6·7	4·7	9·3	4·6	5·7
2 ..	5·2	5·4	4·4	6·7	7·4	5·9	7·8	7·7	5·2	7·4	5·6	5·2
3 ..	4·2	7·5	5·3	4·2	6·0	5·2	7·4	5·9	6·5	7·7	7·4	5·4
4 ..	5·6	6·4	6·0	4·7	5·0	3·2	7·7	5·5	8·3	9·8	4·9	4·9
5 ..	4·3	6·9	5·2	3·8	5·1	5·8	6·0	5·0	4·7	10·4	5·2	6·6
6 ..	3·0	4·1	6·2	6·2	4·8	7·0	6·0	4·0	3·7	6·3	6·2	5·0
7 ..	3·8	4·8	6·6	6·1	5·0	8·7	6·9	6·2	3·7	4·3	6·5	4·0
8 ..	3·9	4·4	4·8	6·2	5·5	6·7	10·4	6·7	7·0	4·6	5·9	5·0
9 ..	5·5	6·4	5·2	4·9	4·9	6·2	10·2	9·0	7·6	3·7	7·0	6·1
10 ..	6·3	7·3	6·1	6·7	6·2	5·0	8·1	7·0	3·7	4·2	6·2	6·3
11 ..	5·9	5·2	5·8	8·9	6·5	9·4	6·3	7·0	3·7	4·7	7·0	5·2
12 ..	5·0	7·0	4·7	8·2	5·3	6·6	6·6	9·0	2·8	6·0	6·8	5·5
13 ..	3·7	6·5	4·7	5·3	6·3	6·7	5·2	7·4	4·1	4·1	6·6	7·7
14 ..	3·8	3·9	5·7	6·1	6·0	11·8	6·6	7·9	6·5	3·7	6·4	6·5
15 ..	4·2	5·0	5·7	8·2	6·7	10·5	8·2	6·0	5·3	4·8	5·6	5·8
16 ..	5·2	5·4	5·9	5·4	7·2	10·0	7·8	4·3	5·8	4·8	5·3	6·2
17 ..	5·3	6·5	4·4	4·8	6·0	5·6	9·9	5·0	5·7	5·3	5·7	5·0
18 ..	6·2	6·7	5·5	5·6	6·2	5·9	9·1	5·7	5·8	5·8	4·5	4·6
19 ..	3·7	6·8	6·3	4·7	4·8	8·6	7·0	4·7	6·9	5·0	7·3	5·1
20 ..	3·7	6·3	6·6	4·5	6·0	9·1	6·8	5·2	4·3	4·9	5·4	6·3
21 ..	4·9	4·2	7·7	4·4	7·6	7·7	6·8	5·1	3·7	4·5	4·7	6·0
22 ..	5·6	4·2	7·1	6·1	7·2	7·1	8·0	7·3	5·1	4·5	6·4	4·9
23 ..	8·2	6·0	4·8	6·1	6·2	5·6	7·5	5·9	5·7	10·3	7·5	6·1
24 ..	7·0	4·9	5·7	5·2	4·8	5·0	8·7	6·2	6·3	17·6	7·3	6·7
25 ..	6·1	6·0	6·3	4·2	4·1	5·2	10·5	6·9	5·1	23·7	5·0	5·8
26 ..	5·7	6·0	9·0	6·2	3·7	5·8	12·0	11·5	6·4	8·1	6·1	5·5
27 ..	6·4	5·8	9·0	7·1	4·8	7·7	11·4	12·3	3·7	7·1	5·7	7·0
28 ..	7·1	5·5	5·6	7·9	5·3	6·5	10·5	9·7	4·5	4·8	6·1	7·9
29 ..	5·2		4·7	7·1	5·2	5·7	9·2	6·3	6·5	4·7	6·6	9·5
30 ..	5·4		5·2	7·2	6·0	7·2	9·2	6·1	8·5	4·0	5·8	6·8
31 ..	4·1		4·3		5·6		7·5	4·6		5·2		5·4
Monthly mean ..	5·2	5·7	5·8	6·0	5·8	6·9	8·2	6·7	5·4	6·8	6·1	5·9
Annual variation .	−1·0	−0·5	−0·4	−0·2	−0·4	+0·7	+2·0	+0·5	−0·8	+0·6	−0·1	−0·3

TABLE VIg.—*Showing the mean diurnal inequality of the velocity of the wind in miles per hour for each month of the year 1917 and for the whole year.*

1917 Bombay Civil Time Hourly intervals	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
0 to 1	−1·8	−1·7	−0·8	−1·3	−0·9	−0·4	−0·5	−0·1	−0·8	−0·2	−2·0	−2·2	−1·1
1 to 2	−1·7	−1·6	−0·4	−1·6	−1·0	−0·5	0·0	+0·2	−1·2	−0·4	−2·1	−2·2	−1·0
2 to 3	−1·5	−1·5	−1·1	−1·8	−1·4	0·0	+0·3	−0·1	−0·9	−1·0	−1·4	−1·9	−1·0
3 to 4	−1·0	−1·1	−1·5	−2·0	−1·6	+0·5	+0·2	−0·2	−0·8	−0·8	−1·0	−1·6	−0·9
4 to 5	−0·6	−0·7	−1·9	−2·1	−1·7	+0·7	+0·2	−0·2	−0·6	−0·7	−0·5	−1·1	−0·8
5 to 6	−0·6	−0·6	−2·4	−2·4	−1·9	+0·6	−0·2	+0·1	+0·1	−0·9	+0·1	−0·7	−0·7
6 to 7	−0·3	−0·3	−2·2	−2·6	−1·8	+0·8	−0·1	−0·5	−0·4	−0·4	+0·3	−0·6	−0·7
7 to 8	+0·1	0·0	−1·9	−2·4	−1·5	+0·8	−0·1	−0·4	+0·2	−0·5	+0·8	−0·4	−0·4
8 to 9	+0·5	−0·2	−1·5	−2·3	−1·8	+0·9	0·0	−0·9	−0·1	−0·5	+1·0	+0·1	−0·4
9 to 10	+0·4	−0·4	−1·4	−1·4	−1·6	+0·6	+0·1	−1·2	0·0	0·0	+0·6	+0·1	−0·3
10 to 11	−0·6	−1·2	−1·5	0·0	−1·1	+0·2	0·0	−1·0	−0·3	−0·6	−0·8	−0·6	−0·6
11 to 12	−1·2	−0·7	+0·1	+1·0	−0·4	−0·1	+0·1	−0·3	+0·4	−0·7	−0·7	−1·0	−0·3
12 to 13	−0·6	−0·1	+1·5	+1·8	+0·6	−0·3	+0·2	+0·1	+0·1	+0·3	−0·5	−0·5	+0·2
13 to 14	+0·4	+0·7	+2·8	+2·8	+1·7	−0·5	−0·1	+0·9	+0·4	+0·6	−0·2	+0·3	+0·8
14 to 15	+1·3	+1·5	+3·7	+3·6	+2·6	−0·1	+0·1	+1·1	+0·9	+0·8	+0·6	+1·3	+1·4
15 to 16	+1·9	+2·2	+3·9	+4·0	+3·2	+0·3	+0·1	+1·2	+1·3	+1·5	+1·6	+2·4	+2·0
16 to 17	+1·9	+2·6	+3·8	+3·9	+3·3	−0·5	+0·8	+1·2	+1·3	+1·8	+2·0	+2·8	+2·1
17 to 18	+2·2	+2·5	+3·0	+3·1	+2·6	−0·9	+0·6	+1·0	+0·7	+1·6	+2·0	+3·1	+1·8
18 to 19	+2·1	+2·3	+1·9	+2·2	+1·9	−0·9	+0·4	+0·8	+0·3	+1·1	+2·1	+3·6	+1·5
19 to 20	+1·7	+1·8	+0·9	+1·1	+1·3	−0·1	0·0	0·0	−0·2	+0·4	+1·6	+2·8	+0·9
20 to 21	+0·7	+0·5	−0·2	−0·3	+0·7	−0·4	−0·6	−0·3	−0·7	0·0	+0·3	+1·3	+0·1
21 to 22	−0·7	−1·1	−1·4	−1·1	+0·3	−0·3	−0·9	−0·5	+0·2	−0·1	−1·0	−0·5	−0·6
22 to 23	−1·3	−1·6	−1·6	−1·2	−0·7	−0·2	−0·6	−0·6	0·0	−0·3	−1·9	−1·9	−1·0
23 to 24	−1·8	−1·8	−1·4	−1·2	−1·2	−0·1	−0·6	−0·2	−0·4	−0·1	−1·9	−2·2	−1·1
Range ..	4·0	4·4	6·3	6·6	5·2	1·8	1·7	2·4	2·5	2·8	4·2	5·8	3·2

	Miles.
The mean velocity for June to August	7·3
The mean velocity for September to May	5·9
The mean velocity for the year	6·2

Temperature of the ground, 1917.

TABLE VII.—*Showing for each month the mean temperature of the ground in the thermometer shed and its annual variation at the respective depths of 1, 9, 20, 60 and 132 inches below the surface.*

Depth.	1 Inch.		9 Inches.		20 Inches.		60 Inches.		132 Inches.	
Month.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.
	°	°	°	°	°	°	°	°	°	°
January.	78·0	—3·4	78·8	—3·8	82·3	—3·3	84·1	—1·5	83·0	—0·8
February	78·4	—3·0	79·1	—3·5	82·5	—3·1	83·8	—1·8	83·0	—0·8
March ..	81·4	0·0	81·2	—1·4	84·0	—1·6	84·0	—1·6	83·3	—0·5
April ..	84·4	+3·0	84·7	+2·1	86·2	+0·6	85·1	—0·5	83·7	—0·1
May ..	86·0	+4·6	86·3	+3·7	88·3	+2·7	86·5	+0·9	84·1	+0·3
June ..	84·5	+3·1	86·4	+3·8	89·4	+3·8	87·8	+2·2	84·2	+0·4
July ..	83·0	+1·6	85·5	+2·9	88·2	+2·6	88·0	+2·4	84·4	+0·6
August ..	81·9	+0·5	84·1	+1·5	87·3	+1·7	87·2	+1·6	84·5	+0·7
September	81·5	+0·1	83·0	+0·4	85·9	+0·3	86·2	+0·6	84·1	+0·3
October..	81·4	0·0	82·8	+0·2	85·8	+0·2	85·5	—0·1	83·9	+0·1
November	79·8	—1·6	80·6	—2·0	84·3	—1·3	84·6	—1·0	83·8	0·0
December	77·1	—4·3	78·9	—3·7	83·2	—2·4	83·9	—1·7	83·3	—0·5
Year ..	81·4		82·6		85·6		85·6		83·8	

Maxima and Minima of different Meteorological Elements, 1917.

TABLE VIII.—*In which are collected the individual observations in each month of the year which showed the greatest and the least values of the following elements,* viz., *height of barometer corrected for temperature, temperature of air, pressure of vapour and additional capacity of air.*

1917	Height of barometer.			Temperature of air.			Pressure of vapour.			Additional capacity.		
Month.	Greatest.	Least.	Range.	Greatest.	Least.	Range.	Greatest.	Least.	Range.	Greatest.	Least.	Range.
	in	in	in	°	°	°	in.	in.	in.	in.	in.	in.
January ..	30·120	29·828	0·292	87·6	66·2	21·4	0·841	0·356	0·485	0·783	0·074	0·709
February ..	·067	·687	·380	88·7	66·1	22·6	·886	·274	·612	·908	·035	·873
March ..	·031	·723	·308	91·3	70·0	21·3	·939	·425	·514	·902	·073	·829
April ..	29·921	·700	·221	89·2	76·6	12·6	·980	·522	·458	·697	·100	·597
May ..	·956	·644	·312	90·5	75·4	15·1	1·012	·639	·373	·604	·104	·500
June ..	·780	·412	·368	90·9	77·3	13·6	·032	·816	·216	·519	·021	·498
July ..	·784	·528	·256	87·1	76·0	11·1	·053	·778	·275	·332	·029	·303
August ..	·833	·543	·290	86·7	75·0	11·7	·002	·800	·202	·314	·020	·294
September ..	·848	·528	·320	85·9	74·2	11·7	0·984	·809	·175	·304	·019	·285
October ..	·905	·588	·317	88.7	71·5	17·2	1·011	·524	·487	·593	·020	·573
November ..	30·034	·762	·272	87·6	70·1	17·5	0·901	·441	·460	·751	·071	·680
December ..	·057	·778	·279	85·4	64·4	21·0	·788	·369	·419	·738	·060	·678
Year ..	30·120	29·412	0·708	91·3	64·4	26·9	1·053	0·274	0·779	0·908	0·019	0·889

Relative Humidity of the Air, 1917.

TABLE IX*a*.—*Daily and monthly means of observations taken at 6, 10, 14, 16 and 22 hours daily,*

Complete saturations = 1·000.

1917. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	0·621	0·747	0·633	0·614	0·746	0·728	0·836	0·824	0·927	0·853	0·722	0·680
2	·649	·744	·645	0·677	·709	·731	0·821	·845	·951	·834	·719	·685
3	·723	·814	·671	·802	·715	·720	·840	·832	·951	·883	·669	·705
4	·761	·696	·763	·738	·705	·735	·842	·856	·909	·944	·686	·715
5	·726	·486	·729	·783	·731	·826	·835	·835	·872	·933	·786	·689
6	·791	·653	·666	·722	·736	·840	·814	·852	·906	·888	·781	·684
7	·771	·722	·662	·708	·737	·873	·796	·877	·952	·840	·749	·710
8	·750	·797	·616	·751	·722	·862	·801	·919	·872	·824	·695	·745
9	·689	·764	·708	·759	·688	·864	·781	·872	·864	·825	·652	·733
10	·679	·701	·738	·756	·710	·840	·792	·879	·874	·819	·691	·743
11	·639	·680	·705	·763	·691	·928	·813	·862	·895	·799	·691	·722
12	·656	·706	·685	·708	·698	·888	·815	·869	·842	·852	·670	·747
13	·662	·694	·755	·701	·681	·886	·817	·903	·873	·847	·630	·703
14	·714	·698	·791	·663	·693	·881	·810	·845	·823	·818	·697	·748
15	·709	·720	·777	·712	·658	·906	·811	·840	·837	·818	·745	·723
16	·727	·723	·781	·761	·682	·868	·914	·839	·830	·825	·771	·702
17	·615	·731	·723	·735	·647	·830	·844	·811	·823	·808	·769	·776
18	·694	·698	·603	·695	·717	·795	·823	·819	·801	·758	·781	·791
19	·713	·766	·671	·657	·728	·828	·798	·805	·865	·763	·738	·784
20	·692	·748	·691	·707	·740	·839	·853	·828	·917	·790	·725	·749
21	·757	·806	·722	·705	·740	·839	·940	·870	·868	·822	·812	·761
22	·750	·775	·763	·687	·736	·867	·878	·922	·834	·861	·817	·725
23	·542	·735	·741	·749	·731	·832	·868	·934	·831	·852	·692	·695
24	·560	·687	·726	·804	·713	·805	·825	·937	·830	·792	·574	·675
25	·655	·673	·711	·780	·689	·858	·841	·943	·869	·874	·658	·660
26	·757	·564	·721	·735	·771	·910	·843	·931	·882	·875	·688	·713
27	·746	·565	·776	·702	·772	·847	·871	·913	·862	·738	·691	·684
28	·711	·377	·791	·736	·743	·869	·865	·938	·883	·736	·679	·617
29	·701		·768	·761	·752	·874	·851	·938	·890	·742	·641	·615
30	·708		·619	·757	·774	·845	·849	·943	·952	·714	·695	·650
31	·715		·715		·725		·831	·936		·662		·730
Monthly Mean	0·696	0·702	0·712	0·728	0·719	0·840	0·836	0·878	0·876	0·819	0·711	0·712
Annual Variation.	—·073	—·067	—·057	—·041	—·050	+·071	+·067	+·109	+·107	+·050	—·058	—·057

Annual mean .. .. .. 0·769

Extent of cloudy Sky, 1917.

TABLE IX*b*.—*Daily and monthly means of observations taken at 6, 10, 14, 16 and 22 hours daily, the whole sky being reckoned as 10·0.*

1917. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	..	2·4	..	5·2	1·0	5·6	6·6	9·8	9·6	5·6	..	2·4
2	1·6	8·2	..	3·0	2·6	4·6	8·0	9·2	10·0	5·0	0·2	1·6
3	2·6	5·4	0·2	5·8	5·2	6·0	9·4	9·8	10·0	9·2	..	1·4
4	1·2	0·8	0·4	2·2	4·0	4·0	10·0	9·4	9·8	10·0	..	0·4
5	0·8	..	5·2	5·8	3·4	8·4	7·0	8·2	7·6	10·0	0·6	..
6	2·0	..	1·4	2·2	3·2	8·2	6·0	8·0	9·2	10·0	3·0	..
7	1·2	..	..	2·4	3·0	9·6	5·0	8·6	10·0	9·8	2·0	..
8	..	2·6	..	3·8	3·6	10·0	8·4	9·8	9·6	7·2	1·2	..
9	..	6·6	0·6	4·2	4·0	9·2	8·6	9·6	7·4	4·6	2·4	..
10	..	8·0	1·4	1·0	4·4	7·0	8·2	9·2	7·4	2·6	2·4	0·2
11	..	4·4	..	2·0	3·6	10·0	6·8	9·2	8·2	4·0	1·8	0·4
12	1·8	0·4	..	0·6	3·2	9·8	6·4	9·4	8·4	6·4	0·4	1·4
13	4·6	..	..	4·0	2·2	8·6	7·8	10·0	9·4	6·2	1·4	1·2
14	6·4	..	0·4	1·2	2·8	9·2	8·0	7·8	7·6	3·8	1·2	0·8
15	4·8	..	0·4	1·6	2·8	9·4	10·0	6·8	7·2	4·0	0·8	0·4
16	0·8	..	0·8	1·0	2·0	7·6	10·0	7·4	8·6	4·0	0·2	..
17	..	..	1·2	2·4	0·4	5·2	9·4	7·2	6·0	6·0	1·0	..
18	1·2	..	1·2	2·4	3·4	6·0	8·2	8·2	7·0	4·0	1·8	0·2
19	0·8	..	0·8	4·0	1·6	9·6	7·2	4·6	9·2	9·0	2·0	1·0
20	2·2	..	2·0	4·6	1·2	9·4	8·8	7·0	8·8	6·6	3·2	..
21	..	0·8	0·8	5·2	2·4	6·8	10·0	9·6	6·0	7·4	4·0	0·4
22	..	1·8	..	1·4	2·6	8·8	10·0	10·0	6·0	8·2	1·0	..
23	..	2·4	3·0	1·0	1·6	8·6	10·0	10·0	7·0	9·8	1·0	0·2
24	..	..	3·0	4·6	2·6	7·4	8·0	10·0	8·8	8·0	..	0·2
25	..	..	1·4	2·0	1·2	9·0	9·0	10·0	8·0	8·6	..	0·8
26	..	..	0·6	1·2	4·0	9·6	9·8	10·0	7·0	8·8	..	0·8
27	..	..	2·2	2·0	6·4	9·8	9·8	9·8	8·0	2·2	..	..
28	..	1·8	2·6	..	4·8	10·0	9·6	9·8	8·2	1·2	3·0	..
29	2·4		4·0	7·0	4·0	10·0	9·4	9·8	9·0	4·8	2·8	0·2
30	3·2		6·0	8·2	5·8	8·8	8·0	10·0	10·0	6·2	6·0	..
31	2·6		6·4		4·6		8·2	10·0		2·0		0·6
Monthly Mean	1·3	1·6	1·5	3·1	3·1	8·2	8·4	9·0	8·3	6·3	1·4	0·5
Annual Variation	—3·1	—2·8	—2·9	—1·3	—1·3	+3·8	+4·0	+4·6	+3·9	+1·9	—3·0	—3·9

For the days which have no entry 0.0 is to be understood.

Mean of the months from January to April, November and December .. 1·6

Mean of the months from May to October .. .. .. 7·2

Mean of the year .. .. 4·4

Meteorological data, 1917.

TABLE X.—Five-day means, 1917.

Number of Five-day Period.	Barometric Pressure.	Temperature of the Air.	Pressure of Vapour.	Additional Capacity of the Air.	Rainfall.*	North or South Component of Wind.	East or West Component of Wind.	Number of Five-day Period.	Barometric Pressure.	Temperature of the Air.	Pressure of Vapour.	Additional Capacity of the Air.	Rainfall.*	North or South Component of Wind.	East or West Component of Wind.
	In.	°	In.	In.	In.	Miles.	Miles.		In.	°	In.	In.	In.	Miles.	Miles.
1 ..	29·949	73·9	0·597	0·247	..	3·4 N	0·0	38 ..	29·709	82·9	0·915	0·210	0·31	3·1 S	8·8 W
2 ..	30·009	76·5	·683	·236	..	1·8 N	0·6 E	39 ..	·675	83·2	·932	·205	0·54	1·1 S	7·4 W
3 ..	29·963	76·2	·631	·278	..	1·4 N	0·9 E	40 ..	·612	82·4	·931	·177	2·31	0·1 S	9·4 W
4 ..	·928	77·4	·668	·279	..	2·0 N	1·2 E	41 ..	·603	81·2	·927	·141	7·47	0·2 S	8·0 W
5 ..	·919	75·2	·600	·281	..	4·8 N	1·0 W	42 ..	·651	81·7	·931	·152	1·17	2·1 S	12·2 W
6 ..	·906	74·0	·626	·217	..	4·2 N	1·9 W	43 ..	·672	82·2	·930	·170	0·56	3·4 S	8·3 W
7 ..	·864	74·6	·649	·210	1·68	0·7 S	1·4 E	44 ..	·658	80·6	·907	·138	3·44	1·6 S	5·2 W
8 ..	·941	75·2	·618	·264	..	2·9 N	0·7 W	45 ..	·704	80·3	·899	·136	2·82	0·5 S	8·9 W
9 ..	·962	76·1	·644	·264	..	4·2 N	1·0 W	46 ..	·747	81·8	·907	·182	1·23	1·2 N	6·5 W
10 ..	·887	77·8	·709	·248	..	5·0 N	2·3 W	47 ..	·648	80·7	·913	·139	7·60	1·1 N	5·0 W
11 ..	·836	76·4	·699	·215	..	2·5 N	2·5 W	48 ..	·742	77·8	·881	·073	11·80	0·6 S	10·5 W
12 ..	·785	77·6	·577	·382	..	3·5 N	1·0 W	49 ..	·686	77·9	·901	·054	9·39	1·9 S	5·4 W
13 ..	·792	78·7	·691	·296	..	3·0 N	2·8 W	50 ..	·651	78·0	·880	·079	5·96	0·1 S	4·6 W
14 ..	·825	77·8	·676	·280	..	3·1 N	2·7 W	51 ..	·702	79·9	·887	·133	0·63	1·8 S	5·0 W
15 ..	·845	77·9	·730	·232	..	2·7 N	3·8 W	52 ..	·721	80·9	·886	·168	0·70	0·6 S	5·9 W
16 ..	·858	77·8	·658	·298	..	3·1 N	4·1 W	53 ..	·769	80·3	·892	·144	2·01	1·0 S	2·5 W
17 ..	·884	78·3	·721	·251	..	3·9 N	4·2 W	54 ..	·731	81·3	·923	·150	1·05	2·6 N	0·3 W
18 ..	·908	82·0	·808	·292	..	3·7 N	2·5 W	55 ..	·658	80·0	·905	·123	6·26	1·3 S	4·4 W
19 ..	·798	83·3	·842	·300	..	0·8 N	2·5 W	56 ..	·670	78·1	·876	·089	12·98	2·3 S	8·3 W
20 ..	·795	81·5	·810	·268	..	3·2 N	4·3 W	57 ..	·830	79·5	·843	·168	0·13	0·7 N	1·9 W
21 ..	·822	81·0	·764	·295	..	4·2 N	5·3 W	58 ..	·825	81·4	·902	·173	0·04	1·3 N	0·7 E
22 ..	·801	81·4	·777	·297	..	0·8 N	4·7 W	59 ..	·734	81·8	·888	·200	0·65	1·8 N	1·1 E
23 ..	·802	82·0	·826	·272	..	1·3 N	4·1 W	60 ..	·700	78·9	·824	·166	2·11	7·7 S	3·7 E
24 ..	·794	82·9	·838	·291	..	4·3 N	4·8 W	61 ..	·805	76·8	·675	·250	..	2·7 N	0·3 W
25 ..	·756	82·2	·812	·292	0·08	0·6 N	3·2 W	62 ..	·902	78·3	·726	·248	..	3·4 N	1·1 E
26 ..	·810	83·7	·844	·311	0·16	0·3 S	5·3 W	63 ..	·865	78·1	·696	·273	..	4·5 N	0·2 E
27 ..	·808	83·6	·807	·345	..	1·2 N	6·1 W	64 ..	·840	76·0	·647	·256	..	4·3 N	0·6 W
28 ..	·843	83·4	·820	·328	..	2·0 N	4·2 W	65 ..	·868	77·7	·734	·216	..	3·7 N	2·1 W
29 ..	·835	83·6	·846	·308	..	1·9 N	6·0 W	66 ..	·917	77·5	·678	·272	..	3·1 N	2·1 E
30 ..	·754	85·2	·944	·272	0·64	0·4 S	5·3 W	67 ..	·945	77·3	·657	·287	..	3·0 N	2·8 E
31 ..	·680	86·4	·938	·326	0·01	0·5 N	5·4 W	68 ..	·918	75·6	·636	·255	..	2·8 N	1·3 E
32 ..	·665	81·7	·925	·158	2·68	4·6 S	0·7 E	69 ..	·856	74·7	·645	·219	..	3·6 N	0·4 W
33 ..	·530	80·9	·930	·125	5·23	6·4 S	1·3 W	70 ..	·907	74·9	·641	·226	..	5·2 N	2·0 W
34 ..	·655	82·1	·932	·168	1·96	5·9 S	3·1 W	71 ..	·938	73·3	·646	·180	..	3·7 N	0·7 W
35 ..	·660	82·9	·949	·176	1·62	3·3 S	7·2 W	72 ..	·910	76·0	·643	·262	..	3·2 N	1·2 E
36 ..	·596	81·3	·927	·141	3·43	2·6 S	5·6 W	73 ..	·891	71·9	·507	·263	..	6·3 N	1·9 W
37 ..	·672	82·0	·924	·171	1·11	4·0 S	7·9 W								

* Five-day sums, *not means.*

TABLE Ia.—*Daily and monthly means.*

Height of the barometer above mean sea-level = 37 feet.

1918. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
1 ..	29·963	29·951	29·889	29·824	**29·766**	29·678	29·680	29·712	29·764	29·865	29·832	29·935
2 ..	**·968**	·949	·879	·814	·754	·715	·696	·666	·773	·855	·804	·930
3 ..	·961	·926	·879	·815	·739	·755	·634	·649	·781	·851	·799	·941
4 ..	·951	·931	**·922**	·841	·732	·782	**·598**	·709	·765	·849	·801	·964
5 ..	·936	·930	·906	·879	·727	**·806**	·629	·701	**·759**	·889	**·781**	·933
6 ..	·896	·905	·895	**·886**	·728	·783	·670	·678	·774	·888	·813	·933
7 ..	·908	·918	·902	·832	·723	·767	·693	·706	·808	·858	·890	·954
8 ..	·914	·930	·900	·703	·726	·767	·734	·758	·835	·874	·910	·970
9 ..	·910	·955	·894	·815	·719	·747	·773	·760	·857	·891	·916	·906
10 ..	·919	·972	·883	·838	·692	·722	·751	·777	·866	·884	·888	**·897**
11 ..	·920	·968	·863	·836	·649	·727	·741	**·823**	·837	·876	·871	·913
12 ..	·931	·982	·874	·849	·626	·741	·759	·788	·844	·861	·844	·913
13 ..	·898	·978	·878	·850	·664	·723	·763	·717	·859	·853	·837	·920
14 ..	·900	·981	·876	·854	·685	·693	·757	·668	·879	·854	·873	·937
15 ..	·928	·999	·855	·833	·705	·684	·772	·658	·857	·848	·877	·938
16 ..	·944	·997	·896	·821	·684	·677	·764	·714	·853	·862	·847	·961
17 ..	·905	**30·014**	·887	·831	·643	·656	·777	·705	·872	·876	·851	·954
18 ..	·888	29·981	·867	·821	·666	**·613**	·782	·685	**·882**	·869	·854	·942
19 ..	·879	·936	·880	·856	·674	·617	·800	·657	·882	·843	·835	·947
20 ..	**·874**	·926	·823	·838	·665	·633	·817	**·644**	·873	·828	·816	·975
21 ..	·885	·923	**·785**	·797	·641	·651	**·825**	·709	·833	·846	·830	·970
22 ..	·916	·944	·829	·802	·637	·673	·785	·738	·844	·874	·857	·949
23 ..	·960	·961	·873	·808	·632	·689	·743	·725	·868	·883	·858	·949
24 ..	·940	·967	·836	·792	**·623**	·697	·770	·727	·865	·861	·840	·946
25 ..	·894	·951	·827	·787	·667	·699	·780	·718	·841	·825	·842	**·994**
26 ..	·897	·904	·829	·834	·689	·716	·768	·766	·808	**·820**	·844	·961
27 ..	·900	**·890**	·817	·807	·681	·714	·752	·778	·827	·905	·871	·946
28 ..	·905	·917	·810	**·745**	·688	·692	·731	·744	·851	**·926**	·864	·968
29 ..	·917		·813	·755	·671	·663	·728	·735	·832	·878	·882	·961
30 ..	·938		·810	·778	·698	·654	·742	·781	·838	·846	**·924**	·942
31 ..	·952		·819		·701		·711	·790		·851		·949
Monthly Mean.	29·919	29·949	29·861	29·821	**29·687**	29·704	29·740	29·722	29·834	29·864	29·851	29·945
Annual Variation.	+·094	+·124	+·036	−·004	−·138	−·121	−·085	−·103	+·009	+·039	+·026	+·120

Annual mean .. .. In. 29·825

TABLE Ib.—*Mean diurnal inequality for each month of the year and for the whole year.*

Unity = 0·001 inch.

1918. Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
0 7	+ 7	+ 7	+ 8	+ 5	+ 11	+ 7	+ 5	+ 6	+ 2	− 1	+ 2	+ 4	+ 5
1 7	− 5	− 6	− 8	− 6	− 7	− 10	− 13	− 12	− 12	− 14	− 12	− 7	− 9
2 7	− 18	− 22	− 21	− 21	− 24	− 24	− 30	− 27	− 26	− 24	− 23	− 19	− 23
3 7	− 27	− 29	− 27	− 28	− 29	− 27	− 35	− 33	− 30	− 24	− 28	− 26	− 29
4 7	− 29	− 30	− 26	− 22	− 23	− 27	− 34	− 33	− 27	− 19	− 24	− 23	− 26
5 7	− 20	− 19	− 16	− 10	− 13	− 20	− 25	− 24	− 17	− 6	− 12	− 14	− 16
6 7	− 5	− 1	+ 3	+ 5	+ 4	− 5	− 9	− 12	− 2	+ 16	+ 8	+ 3	0
7 7	+ 20	+ 23	+ 23	+ 29	+ 24	+ 12	+ 8	+ 7	+ 21	+ 37	+ 32	+ 24	+ 22
8 7	+ 44	+ 46	+ 46	+ 49	+ 39	+ 25	+ 22	+ 23	+ 39	+ 55	+ 51	+ 51	+ 41
9 7	**+ 64**	+ 65	+ 57	**+ 59**	+ 47	**+ 36**	**+ 32**	**+ 37**	**+ 50**	**+ 66**	**+ 66**	**+ 64**	**+ 54**
10 7	+ 63	**+ 68**	**+ 59**	+ 56	+ 46	+ 36	**+ 33**	+ 39	+ 50	+ 61	+ 59	+ 60	+ 52
11 7	+ 47	+ 52	+ 46	+ 45	+ 37	+ 33	+ 29	+ 35	+ 41	+ 40	+ 39	+ 41	+ 40
12 7	+ 17	+ 22	+ 21	+ 24	+ 20	+ 21	+ 20	+ 23	+ 20	+ 11	+ 7	+ 10	+ 18
13 7	− 16	− 9	− 7	− 3	− 3	+ 7	+ 8	+ 6	− 4	− 17	− 22	− 20	− 7
14 7	− 40	− 37	− 33	− 29	− 24	− 8	− 8	− 12	− 26	− 40	− 44	− 43	− 29
15 7	− 52	− 50	− 51	− 44	− 43	− 22	− 18	− 25	− 41	**− 53**	− 53	− 52	− 42
16 7	**− 53**	**− 53**	**− 53**	**− 55**	**− 54**	**− 34**	− 28	**− 34**	**− 44**	− 53	− 53	− 51	**− 47**
17 7	− 45	− 44	− 47	− 48	− 47	− 31	− 22	− 28	− 38	− 44	− 42	− 41	− 40
18 7	− 30	− 33	− 35	− 35	− 29	− 23	− 14	− 20	− 25	− 32	− 26	− 27	− 27
19 7	− 9	− 16	− 18	− 20	− 12	− 9	− 1	− 5	− 6	− 10	− 4	− 3	− 9
20 7	+ 11	+ 4	+ 6	− 1	+ 8	+ 4	+ 12	+ 10	+ 10	+ 12	+ 16	+ 14	+ 9
21 7	+ 25	+ 18	+ 20	+ 14	+ 23	+ 15	+ 22	+ 22	+ 23	+ 19	+ 27	+ 25	+ 21
22 7	+ 28	+ 22	+ 24	+ 22	+ 28	+ 21	+ 26	+ 28	+ 25	+ 15	+ 28	+ 24	+ 24
23 7	+ 19	+ 15	+ 17	+ 17	+ 21	+ 19	+ 21	+ 22	+ 19	+ 8	+ 19	+ 14	+ 18
Range	117	121	112	114	101	70	68	73	94	119	119	116	101

TABLE IIa.—*Daily and monthly means.*

1918. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	°	°	°	°	°	°	°	°	°	°	°	°
1 ..	72·4	75·6	79·9	78·1	83·0	81·4	**83·8**	82·1	78·9	81·4	82·2	78·6
2 ..	72·7	74·9	79·4	77·8	83·1	82·8	82·1	80·7	**78·8**	**80·7**	81·7	78·7
3 ..	74·0	74·4	78·5	77·0	82·7	83·6	81·9	80·8	81·1	81·7	81·0	78·9
4 ..	74·7	72·7	79·9	**76·8**	82·9	83·7	**79·9**	81·7	81·3	81·6	82·5	78·0
5 ..	73·8	70·4	80·9	78·2	82·8	83·3	82·1	81·5	81·6	82·2	**84·1**	76·1
6 ..	72·8	**69·8**	81·4	79·3	83·3	83·3	82·4	81·6	81·3	81·7	84·0	76·8
7 ..	73·2	71·4	80·9	78·7	83·6	82·5	82·8	82·1	81·4	81·5	81·4	**79·0**
8 ..	73·4	72·0	81·4	78·7	84·3	83·0	82·8	**82·5**	80·5	81·2	80·2	77·0
9 ..	73·5	73·2	81·4	79·8	83·9	83·5	82·9	82·3	81·2	82·6	82·3	74·5
10 ..	73·6	76·5	80·9	80·7	83·5	83·5	82·9	81·6	81·0	83·2	83·7	73·7
11 ..	73·0	76·4	**81·5**	81·9	84·2	83·7	83·0	82·3	81·0	82·8	83·9	73·7
12 ..	72·9	75·8	80·8	81·3	84·0	**84·0**	83·3	81·8	81·5	82·5	82·6	74·2
13 ..	73·5	75·6	80·6	79·9	83·2	84·0	83·6	81·4	81·3	83·1	82·4	72·7
14 ..	75·7	75·3	80·6	79·5	83·1	83·8	83·3	82·2	81·9	82·8	83·3	72·4
15 ..	**77·4**	74·4	79·9	79·6	84·8	83·4	82·7	81·5	81·6	82·7	83·1	74·8
16 ..	75·6	72·8	79·7	79·9	85·1	83·7	83·0	80·7	**82·3**	**83·7**	81·8	74·2
17 ..	73·7	73·1	80·4	80·9	85·3	82·8	82·5	81·0	82·2	83·0	81·3	**72·2**
18 ..	72·7	72·6	80·9	80·8	85·4	80·3	83·1	80·6	81·9	82·7	80·7	72·7
19 ..	71·4	74·6	81·3	80·2	85·5	**78·2**	83·3	81·0	81·6	82·0	80·9	74·4
20 ..	73·9	75·6	80·5	81·3	**86·4**	78·9	83·5	**80·4**	81·3	83·0	80·5	74·2
21 ..	77·4	75·5	80·0	81·7	85·9	82·6	82·1	80·8	80·9	83·0	80·6	73·6
22 ..	76·3	75·6	79·9	81·5	85·3	80·4	82·7	80·6	79·7	82·9	79·3	73·3
23 ..	73·5	77·0	75·9	81·6	85·4	83·1	81·4	81·0	79·0	82·8	78·8	74·1
24 ..	70·7	76·7	**73·8**	82·3	84·7	83·2	83·0	80·5	80·0	82·2	**78·5**	73·4
25 ..	**69·3**	77·9	75·9	**83·1**	81·6	83·5	82·1	81·6	80·6	81·7	78·8	73·8
26 ..	71·0	78·0	78·7	83·0	83·1	83·5	82·1	82·0	81·2	81·5	79·6	74·8
27 ..	73·1	77·6	79·6	82·2	81·1	83·6	82·7	82·0	81·7	81·8	79·3	74·5
28 ..	75·7	**79·0**	79·7	82·0	79·6	83·6	82·7	81·6	81·8	82·1	79·6	75·8
29 ..	76·0	..	79·8	82·6	80·3	84·0	82·9	81·1	80·9	82·9	79·1	77·1
30 ..	77·0	..	78·8	82·8	**79·5**	83·4	81·7	82·1	81·1	82·1	79·5	76·8
31 ..	77·1	..	79·0	..	80·9	..	81·9	80·5	..	81·5	..	76·2
Monthly Mean. ..	**73·9**	74·8	79·7	80·4	**83·5**	82·8	82·6	81·4	81·0	82·3	81·2	75·2
Annual Variation.	−6·0	−5·1	−0·2	+0·5	+3·6	+2·9	+2·7	+1·5	+1·1	+2·4	+1·3	−4·7

Annual Mean .. .. ° 79·9

TABLE IIb.—*Mean diurnal inequality for each month of the year and for the whole year.*

1918. Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.	°	°	°	°	°	°	°	°	°	°	°	°	°
0 2	− 2·6	− 1·9	− 2·1	− 2·0	− 1·8	− 1·4	− 1·1	− 1·0	− 1·4	− 2·0	− 2·5	− 2·5	− 1·9
1 2	− 3·1	− 2·3	− 2·4	− 2·5	− 2·0	− 1·4	− 1·3	− 1·3	− 1·7	− 2·4	− 3·0	− 3·0	− 2·2
2 2	− 3·4	− 2·8	− 2·6	− 2·9	− 2·3	− 1·6	− 1·4	− 1·2	− 1·7	− 2·8	− 3·1	− 3·4	− 2·4
3 2	− 3·8	− 3·3	− 2·9	− 3·3	− 2·4	− 1·7	− 1·6	− 1·3	− 2·0	− 3·3	− 3·4	− 4·0	− 2·7
4 2	− 4·1	− 3·7	− 3·4	− 3·6	− 2·7	− 1·8	− 1·8	− 1·2	− 2·3	− 3·6	− 3·8	− 4·4	− 3·0
5 2	− 4·5	− 4·4	− 3·7	− 4·0	− 2·9	− 1·9	− 1·8	− 1·5	− 2·6	− 4·0	− 4·3	− 4·7	− 3·4
6 2	− 4·9	− 4·8	− 4·2	− 4·1	− 2·7	− 2·0	− 1·8	− 1·4	− 2·8	− 4·3	− 4·6	− 4·9	− 3·5
7 2	− 4·9	− 5·0	− 3·8	− 2·9	− 1·8	− 1·4	− 1·4	− 0·9	− 2·2	− 3·7	− 4·2	− 5·0	− 3·1
8 2	− 3·7	− 3·3	− 2·0	− 1·0	− 0·8	− 0·4	− 0·6	− 0·4	− 1·3	− 2·4	− 2·8	− 3·2	− 1·8
9 2	− 1·8	− 0·9	− 0·1	+ 0·7	+ 0·4	+ 0·2	+ 0·1	+ 0·3	− 0·2	− 0·7	− 0·9	− 1·1	− 0·3
10 2	+ 0·6	+ 1·2	+ 1·6	+ 2·0	+ 1·4	+ 1·0	+ 0·9	+ 1·1	+ 1·0	+ 1·1	+ 1·3	+ 1·4	+ 1·2
11 2	+ 3·2	+ 3·2	+ 3·5	+ 3·1	+ 2·4	+ 2·0	+ 1·8	+ 1·9	+ 2·1	+ 2·9	+ 3·6	+ 3·7	+ 2·8
12 2	+ 5·5	+ 4·7	+ 4·5	+ 4·1	+ 3·0	+ 2·3	+ 2·5	+ 2·3	+ 2·9	+ 4·2	+ 5·5	+ 5·2	+ 3·9
13 2	+ **6·9**	+ 5·2	+ 4·8	+ 4·5	+ 3·5	+ **2·7**	+ **2·6**	+ **2·5**	+ 3·2	+ 4·8	+ 6·0	+ 5·9	+ 4·4
14 2	+ 6·7	+ **5·4**	+ **5·0**	+ **4·8**	+ 3·5	+ 2·3	+ 2·6	+ 2·3	+ **3·5**	+ **5·3**	+ **6·2**	+ **6·3**	+ **4·5**
15 2	+ 6·1	+ 5·0	+ 4·7	+ 4·6	+ **3·7**	+ 2·1	+ 2·5	+ 1·7	+ 3·4	+ 5·1	+ 5·5	+ 5·7	+ 4·2
16 2	+ 5·1	+ 4·4	+ 3·9	+ 4·0	+ 3·0	+ 2·1	+ 1·7	+ 1·2	+ 3·1	+ 4·4	+ 4·2	+ 4·8	+ 3·5
17 2	+ 3·2	+ 2·9	+ 2·8	+ 2·8	+ 1·8	+ 1·4	+ 1·2	+ 0·6	+ 2·2	+ 2·7	+ 2·4	+ 3·0	+ 2·2
18 2	+ 1·6	+ 1·5	+ 1·3	+ 1·1	+ 0·5	+ 0·6	+ 0·2	+ 0·1	+ 0·7	+ 1·3	+ 1·3	+ 1·9	+ 1·0
19 2	+ 0·9	+ 0·8	+ 0·3	0·0	− 0·5	− 0·2	− 0·3	− 0·3	0·0	+ 0·7	+ 0·8	+ 1·2	+ 0·3
20 2	+ 0·4	+ 0·6	− 0·1	− 0·4	− 0·8	− 0·4	− 0·6	− 0·4	− 0·3	− 0·1	+ 0·2	+ 0·5	− 0·1
21 2	− 0·1	− 0·1	− 1·0	− 1·0	− 1·0	− 0·6	− 0·9	− 0·7	− 0·7	− 0·8	− 0·6	− 0·4	− 0·7
22 2	− 1·1	− 0·8	− 1·2	− 1·2	− 1·1	− 1·0	− 0·8	− 1·0	− 1·0	− 1·4	− 1·5	− 1·3	− 1·1
23 2	− 1·8	− 1·5	− 1·7	− 1·6	− 1·3	− 1·0	− 0·9	− 1·0	− 1·2	− 1·6	− 2·0	− 2·1	− 1·5
Range.	11·8	10·4	9·2	8·9	6·6	4·7	4·4	4·0	6·3	9·6	10·8	11·3	8·0

TABLE IIc.—*Showing the maximum temperature of the air on each day during the year* 1918.

1918. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	°	°	°	°	°	°	°	°	°	°	°	°
1	83·3	83·6	89·1	86·4	89·9	86·2	**88·7**	86·2	83·2	87·6	92·2	86·6
2	85·1	82·6	86·2	86·2	89·8	88·1	86·0	84·1	84·1	87·8	90·4	87·1
3	85·2	82·7	86·1	85·1	89·3	88·1	87·9	82·6	86·3	88·2	89·3	87·3
4	85·4	81·1	87·3	84·9	**89·3**	88·8	81·6	84·2	86·6	88·4	91·0	86·1
5	84·0	79·6	88·4	85·7	89·5	88·1	83·6	85·1	86·8	89·1	**93·6**	84·9
6	82·3	80·3	87·9	86·5	90·2	88·9	85·0	85·9	86·1	89·0	90·0	**88·1**
7	85·1	80·0	88·3	86·1	90·2	87·4	86·4	86·9	86·0	88·6	85·1	87·9
8	84·1	80·9	88·1	87·1	91·2	88·1	87·2	87·1	85·5	87·9	83·3	87·1
9	83·0	83·1	89·2	89·1	90·6	88·3	87·1	87·1	86·1	89·3	87·6	85·1
10	83·3	**88·2**	88·2	89·1	89·9	88·1	87·5	**87·2**	86·2	88·6	91·4	83·7
11	82·1	87·2	88·5	89·5	90·7	**89·1**	88·1	86·9	86·3	88·4	92·4	83·2
12	81·3	84·3	87·6	89·9	88·1	89·0	88·1	86·2	86·8	88·9	91·2	84·1
13	83·2	84·7	89·0	88·1	90·8	88·9	88·1	84·6	86·2	89·1	92·2	81·9
14	84·6	84·1	89·0	87·0	89·4	89·0	87·9	87·1	87·1	89·0	90·2	83·0
15	86·2	82·5	88·4	86·9	91·0	89·0	87·1	84·9	87·1	90·2	91·0	85·1
16	85·4	82·2	86·7	87·1	90·7	88·6	88·2	84·5	**88·1**	**93·2**	89·3	83·0
17	80·7	81·9	88·4	87·6	**91·3**	87·1	88·0	85·1	85·9	91·0	90·7	82·1
18	81·6	80·9	89·1	88·0	91·7	83·9	88·1	84·6	87·4	91·4	90·8	83·5
19	79·2	83·0	88·9	87·9	91·6	82·1	88·2	85·6	86·9	89·9	91·8	83·5
20	86·3	84·0	87·2	89·3	**92·5**	81·5	88·1	85·1	86·3	89·3	92·9	83·3
21	86·5	84·2	86·9	89·9	92·3	86·6	87·1	84·3	86·0	89·5	92·8	82·3
22	84·0	82·0	86·2	88·1	91·5	83·1	87·7	84·9	84·1	91·0	89·3	82·3
23	80·4	84·7	81·1	88·2	91·4	87·1	87·3	85·2	84·6	91·8	89·3	82·9
24	79·0	85·5	83·2	89·2	90·6	87·3	87·1	85·1	86·1	89·3	89·7	82·9
25	78·5	87·3	87·1	**90.7**	86·6	88·0	87·1	85·7	86·3	90·2	89·1	82·7
26	81·1	86·9	**90·6**	89·1	89·2	88·5	86·8	86·9	87·9	88·2	89·1	85·1
27	82·3	86·5	89·7	89·1	87·1	88·3	87·1	87·1	87·3	88·1	87·3	83·3
28	84·2	87·3	88·3	89·0	83·3	88·5	87·8	85·9	87·4	90·8	86·0	84·0
29	84·1		88·5	89·1	85·8	89·1	87·1	84·4	85·9	91·0	86·2	87·7
30	**86·8**		87·3	89·1	83·0	88.9	86·1	87·1	86·7	90·6	86·3	84·2
31	85·3		87·1		86·1		88·1	86·3		90·8		83·0
Monthly Mean.	**83·3**	83·6	87·7	88·0	89·5	87·5	87·1	85·6	86·2	89·6	**89·7**	84·4

Annual Mean .. .. .. 86·8

The greatest maximum temperature recorded during the year (that of 5th November) was .. 93·6

TABLE IId.—*Showing the minimum temperature of the air on each day during the year* 1918.

1918. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	°	°	°	°	°	°	°	°	°	°	°	°
1	65·5	71·3	73·1	73·8	78·5	77·9	81·0	78·8	78·8	77·6	77·5	73·7	74·6
2	66·7	70·8	74·6	**72·3**	78·4	77·2	80·2	78·6	**75·2**	76·2	74·4	72·7
3	67·1	70·1	74·4	73·3	78·8	80·9	79·8	78·4	76·4	77·6	75·0	73·3
4	69·5	67·3	74·4	72·3	78·9	81·2	78·0	79·4	77·6	77·2	76·3	72·9
5	69·0	64·8	76·5	73·3	79·2	78·0	78·0	79·2	78·0	77·8	78·2	69·7
6	68·1	**61·3**	76·9	76·4	78·6	80·2	80·5	80·0	78·2	77·6	80·4	69·3
7	67·2	65·1	70·4	74·9	79·0	81·2	80·6	79·8	77·8	76·4	80·0	74·0
8	66·8	66·8	76·9	72·5	79·5	**78·4**	80·5	80·0	76·2	77·2	75·6	71·1
9	68·3	65·4	76·5	72·5	79·8	79·9	80·6	80·2	78·5	79·4	78·8	68·1
10	68·1	69·6	75·9	75·0	81·6	80·2	80·2	80·2	77·0	80·0	78·4	67·4
11	66·8	71·0	76·2	76·2	80·9	80·5	80·5	78·9	77·2	78·4	78·6	67·3
12	66·8	70·1	78·8	76·4	81·8	80·6	80·5	79·6	77·5	78·2	75·4	66·7
13	66·8	70·3	67·4	75·6	77·5	80·6	81·5	79·8	76·8	79·3	74·4	65·3
14	69·2	68·8	74·5	74·2	80·0	80·8	81·1	80·4	78·4	78·7	77·4	65·1
15	72·7	70·0	75·2	75·4	81·4	80·8	80·2	77·8	78·0	75·6	78·8	67·3
16	70·5	68·0	76·2	75·4	81·8	80·3	80·0	77·5	79·3	76·2	74·8	69·0
17	69·1	68·5	74·9	76·4	82·4	80·4	79·5	78·4	79·5	77·6	74·4	**64·7**
18	67·1	68·5	76·2	76·0	82·0	79·2	79·6	78·2	77·9	77·2	73·1	65·3
19	66·3	69·5	75·4	75·9	81·8	76·4	80·4	77·9	76·8	76·6	74·1	69·2
20	66·1	70·5	77·0	76·4	82·8	76·6	80·5	78·1	77·4	78·6	74·0	68·7
21	71·7	70·5	76·2	77·4	82·6	79·0	**77·8**	77·6	77·4	78·8	74·5	67·9
22	73·0	70·3	76·9	77·0	81·5	78·8	79·6	**77·4**	76·9	77·2	73·7	67·8
23	67·7	72·4	75·2	77·4	82·4	77·8	78·2	77·6	76·2	75·8	**72·3**	67·3
24	65·4	69·2	67·9	76·8	81·8	80·0	79·2	77·4	75·4	76·6	73·0	67·2
25	**62·8**	70·3	**65·7**	79·0	78·0	81·0	78·8	78·2	77·4	75·2	72·6	67·1
26	64·6	72·2	71·3	80·4	80·4	80·8	78·4	79·4	77·4	76·8	72·8	67·3
27	66·5	70·1	71·5	79·0	77·5	79·5	79·5	78·8	77·9	77·4	73·5	69·1
28	69·7	72·3	73·7	78·0	76·4	80·8	80·4	79·4	78·2	76·5	75·4	68·9
29	71·1		73·0	78·8	**76·3**	81·2	80·5	77·5	76·7	76·0	75·5	71·0
30	71·2		73·1	78·8	77·5	81·3	80·4	79·4	76·4	76·4	76·0	71·5
31	71·4		75·2		76·5		80·0	79·4		**74·9**		73·3
Monthly Mean.	**68·2**	69·1	74·4	75·9	**79·9**	79·6	79·9	78·8	77·4	77·3	75·5	69·1

Annual Mean .. .. .. 75·4

The least minimum temperature recorded during the year (that of 6th February) was .. 61·3

TABLE IIIa.—*Daily and monthly means.*

1918. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
1 ..	0·528	0·643	0·754	0·687	0·877	0·894	0·880	0·888	0·856	0·820	0·710	0·728
2 ..	·516	·593	·838	·641	·875	·906	·891	·886	·860	·843	·698	·688
3 ..	·519	·571	·808	·629	·856	·907	**·917**	·900	·847	·867	·721	·731
4 ..	·556	·424	·786	·642	·891	·899	·900	·906	·813	·878	·826	·695
5 ..	·588	**·344**	·777	·694	·870	·901	·897	·888	·819	·903	·846	·575
6 ..	·596	·452	·876	·730	**·847**	·890	·897	·896	·814	·840	**·900**	·547
7 ..	·563	·578	**·877**	·580	·858	·900	·898	**·914**	·819	·842	·836	·584
8 ..	·558	·543	·864	**·578**	·882	·908	·901	·910	·834	·858	·796	·556
9 ..	·523	·548	·845	·619	·896	·881	·899	·896	·840	·938	·851	·602
10 ..	·527	·591	·851	·684	·923	·870	·883	·896	·839	**·957**	·819	·515
11 ..	·554	·645	·823	·715	·902	·872	·891	·905	·813	·957	·835	·520
12 ..	·547	·702	·862	·749	·869	·886	·900	·874	·816	·940	·714	·524
13 ..	·559	·665	·692	·755	·888	·876	·913	·862	·829	·939	·739	**·418**
14 ..	·672	·614	·782	·776	**·962**	·879	·908	·882	·844	·897	·870	·445
15 ..	·640	·576	·792	·798	·950	·887	·885	·891	·846	·828	·880	·539
16 ..	·621	·599	·778	·800	·926	·894	·893	·902	·847	·818	·778	·530
17 ..	·581	·598	·713	·834	·932	**·920**	·885	·911	·839	·805	·683	·480
18 ..	·577	·627	·753	·821	·904	·916	·886	·895	·843	·838	·632	·558
19 ..	·467	·622	·774	·795	·915	·881	·891	·882	·828	·851	·569	·637
20 ..	·575	·590	·787	·781	·944	·903	·875	·895	·838	·921	·567	·638
21 ..	·639	·594	·719	·810	·959	·914	·870	·886	·816	·936	·615	·559
22 ..	·704	·656	·746	·856	·940	·902	·887	·889	·851	·863	·620	·580
23 ..	·509	**·706**	·505	·851	·960	·916	·873	·890	·823	·796	**·560**	·588
24 ..	·383	·651	**·372**	·839	·942	·902	·880	·893	·816	·798	·612	·569
25 ..	**·378**	·609	·439	·877	·905	·904	·881	·891	·809	·872	·647	·579
26 ..	·454	·684	·575	**·927**	·893	·901	·884	·883	·868	·876	·712	·575
27 ..	·568	·628	·707	·885	·914	·896	·883	·876	**·883**	·900	·755	·628
28 ..	·666	·687	·686	·868	·909	·901	·881	·843	·861	·845	·781	·647
29 ..	·693		·598	·882	·906	·879	·867	·848	·795	**·715**	·775	·691
30 ..	·697		·745	·897	·902	**·858**	**·840**	·869	**·787**	·722	·777	·702
31 ..	**·708**		·781		·918		·872	**·840**		·748		**·737**
Monthly Mean.	**0·570**	0·598	0·739	0·767	**0·907**	0·895	0·887	0·887	0·833	0·858	0·737	0·589
Annual Variation.	−·202	−·174	−·033	−·005	+·135	+·123	+·115	+·115	+·061	+·086	−·035	−·183

Annual Mean .. Inch. ..0·772

TABLE IIIb.—*Mean diurnal inequality for each month of the year and for the whole year.*

Unity = 0·001 inch.

1918. Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
0 2	− 3	+ 5	+ 12	+ 6	− 12	− 11	− 13	− 7	− 23	+ 10	+ 8	− 6	− 3
1 2	− 2	+ 10	0	− 1	− 15	− 10	− 20	− 13	− 22	+ 14	− 4	− 12	− 6
2 2	− 13	+ 10	+ 3	− 11	− 19	− 14	− 21	− **16**	− 13	+ 3	− 8	− 24	− 10
3 2	− 21	− 1	− 13	− 16	− 28	− 21	− 17	− 12	− 14	− 9	− 19	− 47	− 18
4 2	− 31	− 3	− 18	− 18	− 27	− 22	− 20	− 14	− 6	− 22	− 32	− 54	− 22
5 2	− 38	− 29	− 25	− **29**	− **31**	− **26**	− 22	− 10	− 2	− **30**	− 52	− **62**	− **30**
6 2	− 47	− 40	− 33	− 26	− 21	− 24	− **23**	− 12	0	− 28	− 43	− 50	− 29
7 2	− **53**	− **56**	− **36**	− 17	− 16	− 13	− 17	− 6	+ 12	− 26	− 33	− **53**	− 26
8 2	− 47	− 44	− 30	− 12	− 8	+ 6	+ 6	+ 10	+ 30	− 16	− 16	− 35	− 13
9 2	− 49	− 41	− 24	− 12	+ 1	+ 9	+ 6	+ 11	+ 31	− 25	− 12	− 26	− 11
10 2	− 39	− 42	− 24	− 2	+ 10	+ 22	+ 26	+ 18	+ **34**	− 11	− 26	− 16	− 4
11 2	− 52	− 30	− 23	+ 9	+ 20	+ 27	+ 30	+ 23	+ 32	− 18	− **71**	− 13	− 5
12 2	− 53	− 3	+ 13	+ 19	+ **26**	+ 29	+ **34**	+ **32**	+ 27	− 21	− 64	− 20	+ 2
13 2	− 17	+ 23	+ 17	+ 15	+ 24	+ **38**	+ 34	+ 29	+ 21	− 5	− 22	+ 13	+ 14
14 2	+ 34	+ 49	+ 25	+ 13	+ 23	+ 25	+ 29	+ 24	+ 28	+ 8	+ 19	+ 36	+ 26
15 2	+ 56	+ 51	+ **28**	+ **19**	+ 21	+ 23	+ 26	+ 8	+ 13	+ 15	+ 38	+ 55	+ 29
16 2	+ **76**	+ **53**	+ 24	+ 18	+ 26	+ 19	+ 21	+ 4	+ 5	+ 14	+ 44	+ 57	+ **30**
17 2	+ 72	+ 45	+ 13	+ 7	+ 10	+ 6	+ 3	− 10	− 11	+ 11	+ 42	+ 54	+ 20
18 2	+ 68	+ 30	+ 5	− 3	+ 8	− 1	− 8	− 9	− 19	+ 23	+ 49	+ 57	+ 17
19 2	+ 62	+ 16	+ 14	− 5	+ 4	− 7	− 13	− 15	− **27**	+ 32	+ 66	+ **59**	+ 15
20 2	+ 51	+ 10	+ 21	+ 6	+ 6	− 11	− 11	− 10	− 25	+ **38**	+ **72**	+ 54	+ 17
21 2	+ 31	+ 1	+ 21	+ 8	− 3	− 17	− 10	− 13	− 27	+ 28	+ 51	+ 38	+ 9
22 2	+ 13	− 2	+ 15	+ 13	+ 1	− 18	− 2	− 6	− 20	+ 18	+ 14	+ 9	+ 3
23 2	− 1	− 9	+ 10	+ 7	− 1	− 14	− 11	− 9	− 23	+ 11	+ 10	− 8	− 3
Range.	129	109	64	48	57	64	57	48	61	68	143	121	60

TABLE IV*a*.—*Daily and monthly means.*

1918. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
1 ..	0·277	0·247	0·273	0·279	0·254	0·177	0·279	0·209	0·133	0·252	0·400	0·252
2 ..	·298	·274	·169	·317	·260	·217	·205	·162	·127	·206	·391	·298
3 ..	·327	·284	·171	·303	·266	·243	·174	·150	·218	·217	·341	·263
4 ..	·313	·383	·239	·282	·238	·256	·121	·176	·258	·204	·290	·267
5 ..	·252	·405	·282	·277	·256	·242	·199	·188	·263	·200	·329	·330
6 ..	·217	·285	·199	·273	·299	·251	·209	·184	·257	·244	·269	·386
7 ..	·266	·195	·182	·402	·297	·214	·222	·182	·255	·234	·238	·414
8 ..	·274	·246	·213	·408	·298	·222	·221	·200	·210	·209	·236	·378
9 ..	·309	·275	·232	·404	·267	·267	·226	·209	·226	·178	·254	·357
10 ..	·308	·334	·209	·371	·226	·279	·242	·182	·222	·180	·339	·325
11 ..	·265	·272	·256	·379	·271	·287	·239	·199	·245	·169	·331	·317
12 ..	267	·196	·192	·325	·298	·283	·242	·213	·263	·173	·406	·329
13 ..	274	·227	·359	·271	·252	·290	·238	·211	·242	·195	·380	·392
14 ..	224	·266	·268	·237	·173	·282	·233	·218	·248	·226	·275	·357
15 ..	306	·279	·234	·216	·250	·258	·234	·185	·236	·298	·256	·332
16 ..	271	·212	·237	·226	·283	·263	·238	·146	·256	·351	·312	·320
17 ..	253	·219	·329	·225	·285	·201	·228	·149	·262	·329	·394	·316
18 ..	231	·178	·306	·235	·318	·117	·248	·150	·247	·287	·423	·253
19 ..	·305	·239	·296	·240	·309	·083	·252	·174	·254	·248	·492	·219
20 ..	·274	·299	·255	·292	·317	·085	·275	·142	·231	·213	·486	·213
21 ..	·306	·292	·308	·277	·281	·200	·229	·167	·239	·194	·441	·274
22 ..	·204	·232	·277	·223	·279	·134	·232	·155	·166	·269	·390	·243
23 ..	·318	·227	·389	·231	·260	·219	·199	·162	·170	·334	·432	·260
24 ..	·372	·272	·469	·270	·254	·236	·249	·150	·211	·309	·374	·258
25 ..	·343	·351	·470	·259	·176	·245	·217	·190	·235	·218	·348	·260
26 ..	·312	·278	·418	·203	·240	·246	·215	·210	·200	·202	·306	·295
27 ..	·252	·324	·315	·217	·148	·258	·237	·220	·200	·188	·254	·232
28 ..	·227	·308	·332	·226	·103	·250	·238	·238	·226	·259	·232	·251
29 ..	·208		·424	·235	·129	·287	·258	·212	·261	·418	·223	·251
30 ..	·240		·245	·230	·107	·288	·244	·228	·279	·382	·233	·225
31 ..	·230		·215		·140		·218	·204		·335		·168
Monthly Mean.	0·275	0·271	0·283	0·278	0·243	0·229	0·228	0·186	0·228	0·249	0·336	0·292
Annual Variation.	+·017	+·013	+·025	+·020	−·015	−·029	−·030	−·072	−·030	−·009	+·078	+·034

Annual Mean .. .. Inch. 0·258

TABLE IV*b*.—*Mean diurnal inequality for each month of the year and for the whole year.*

Unity = 0·001 inch.

1918. Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
0 2	− 75	− 62	− 85	− 79	− 53	− 40	− 27	− 29	− 29	− 83	− 98	− 70	− 61
1 2	− 87	− 79	− 83	− 87	− 60	− 43	− 28	− 32	− 38	−100	−100	− 77	− 68
2 2	− 84	− 91	− 93	− 89	− 67	− 45	− 30	− 29	− 49	−103	−102	− 76	− 71
3 2	− 86	− 93	− 86	− 97	− 62	− 42	− 41	− 34	− 58	−106	− 99	− 69	− 73
4 2	− 85	−102	− 95	−106	− 71	− 43	− 46	− 28	− 73	−103	− 98	− 72	− 77
5 2	− 87	− 93	− 98	−104	− 73	− 44	− 44	− 36	− 87	−109	− 95	− 72	− 78
6 2	− 85	− 93	−103	−111	− 76	− 47	− 42	− 39	− 94	−119	−113	− 87	− 84
7 2	− 81	− 83	− 89	− 83	− 52	− 41	− 34	− 27	− 88	−103	−110	− 80	− 73
8 2	− 57	− 50	− 39	− 29	− 24	− 22	− 27	− 26	− 76	− 69	− 83	− 59	− 47
9 2	− 8	+ 10	+ 15	+ 31	+ 14	− 2	− 2	− 1	− 42	− 2	− 25	− 12	− 2
10 2	+ 48	+ 73	+ 70	+ 66	+ 41	+ 13	+ 9	+ 19	− 3	+ 47	+ 65	+ 51	+ 42
11 2	+139	+121	+138	+ 93	+ 70	+ 45	+ 36	+ 43	+ 39	+120	+197	+122	+ 97
12 2	+214	+143	+140	+122	+ 92	+ 57	+ 58	+ 51	+ 75	+177	+265	+176	+131
13 2	+225	+134	+146	+140	+113	+ 65	+ 65	+ 59	+ 94	+186	+244	+170	+137
14 2	+167	+114	+147	+155	+115	+ 63	+ 70	+ 57	+ 96	+193	+210	+160	+129
15 2	+124	+ 99	+131	+139	+122	+ 66	+ 65	+ 51	+107	+178	+160	+120	+113
16 2	+ 70	+ 76	+105	+117	+ 89	+ 59	+ 43	+ 37	+103	+149	+103	+ 86	+ 86
17 2	+ 14	+ 39	+ 76	+ 84	+ 59	+ 45	+ 42	+ 29	+ 87	+ 87	+ 38	+ 31	+ 53
18 2	− 29	+ 10	+ 31	+ 34	+ 10	+ 21	+ 14	+ 12	+ 42	+ 22	− 11	− 5	+ 13
19 2	− 44	+ 3	− 10	0	− 23	0	0	+ 2	+ 23	− 11	− 47	− 30	− 11
20 2	− 47	+ 2	− 31	− 26	− 35	− 6	− 11	− 5	+ 10	− 45	− 71	− 45	− 26
21 2	− 43	− 8	− 59	− 46	− 34	− 7	− 22	− 12	− 1	− 62	− 79	− 57	− 36
22 2	− 50	− 24	− 63	− 61	− 43	− 20	− 29	− 29	− 18	− 70	− 71	− 52	− 44
23 2	− 57	− 37	− 71	− 67	− 50	− 25	− 21	− 26	− 21	− 72	− 85	− 58	− 49
Range.	312	245	250	266	198	113	116	98	201	312	378	263	221

TABLE Va.—*Total fall of rain (in inches) as measured by F. Chamber's self-registering gauge, the funnel of which is 28 feet above the ground.*

1918. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
			In.		In.	In.	In.	In.	In.		In.	
1	..	..	..	..	..	1·14	..	0·03	0·42	..	..	..
2	..	..	..	..	..	0·05	0·25	0·25	0·41	..	..	..
3	..	..	..	..	..	0·07	0·19	0·34	0·01	..	..	..
4	..	..	..	..	..	..	1·69	0·05	..	..	..	..
5	..	..	..	..	..	0·04	0·37	0·20	..	..	..	..
6	..	..	..	..	..	0·14	0·05	0·01	0·01	..	..	..
7	..	..	..	..	..	0·52	0·02	0·05	0·04	..	0·06	..
8	..	..	..	..	..	0·10	..	..	0·92	..	..	..
9	..	..	..	..	..	..	..	0·02	0·01	..	..	..
10	..	..	..	..	0·02	..	..	0·37	..	..	..	..
11	..	..	..	..	..	..	..	..	0·01	..	..	..
12	..	..	1·30	..	..	..	..	0·02	..	..	..	..
13	..	..	..	..	0·13	..	0·01	0·10	0·13	..	..	..
14	..	..	..	..	0·04	..	..	0·01	..	..	..	..
15	..	..	..	..	..	0·26	0·05	0·58	..	..	..	..
16	..	..	..	..	..	0·08	0·03	0·22	..	..	..	..
17	..	..	..	..	..	0·27	0·03	0·18	..	..	..	..
18	..	..	..	..	..	0·52	..	0·27	0·04	..	..	..
19	..	..	..	..	..	4·33	0·01	0·01	..	..	..	..
20	..	..	..	..	..	1·84	..	0·83	..	..	..	..
21	..	..	..	..	0·02	0·03	0·47	0·15	..	..	..	..
22	..	..	0·11	..	0·01	0·73	0·09	0·42	0·35	..	..	..
23	..	..	..	..	..	0·03	0·23	0·19	0·60	..	..	..
24	..	..	..	..	..	0·03	..	0·24	..	..	..	..
25	..	..	..	..	0·74	..	0·21	..	..	..	..	..
26	..	..	..	..	0·02	..	0·06	0·01	..	..	..	..
27	..	..	..	..	1·01	..	0·06	..	..	..	..	..
28	..	..	..	..	4·76	0·09	0·14	..	..	..	..	..
29	..		..	..	1·29	..	..	0·01	..	..	..	..
30	..		..	..	2·37	..	0·02	..	..	..	..	..
31	..		..		0·33		0·07	0·05		..		..
Monthly Total.	..	..	1·41	..	10·74	10·27	4·05	4·61	2·95	..	0·06	..
Number of rainy days.	..	..	2	..	12	18	20	25	12	..	1	..

Inches.

Total fall of rain in the year .. 34·09
Total number of rainy days in the year .. 90
The greatest daily fall of rain in the year (that of 28th May) was 4·76
No rain fell in the months of January, February, April, October and December, nor on any of the days left blank in the above table.

TABLE Vb.—*Total fall of rain (in inches) as measured by Newman's gauge, placed 4½ feet above the ground.*

1918. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
			In.		In.	In.	In.	In.	In.		In.	
1	..	..	..	..	..	1·18	0·01	0·03	0·44	..	..	..
2	..	..	..	..	..	0·06	0·27	0·26	0·42	..	..	..
3	..	..	..	..	..	0·08	0·20	0·36	0·01	..	..	..
4	..	..	..	..	..	..	1·79	0·05	..	..	..	..
5	..	..	..	..	..	0·06	0·38	0·22	..	..	..	..
6	..	..	..	..	..	0·13	0·07	0·01	0·01	..	..	..
7	..	..	..	..	..	0·53	0·02	0·06	0·05	..	0·09	..
8	..	..	..	..	..	0·12	..	..	0·93	..	..	..
9	..	..	..	..	..	..	..	0·03	0·01	..	..	..
10	..	..	..	..	0·03	..	..	0·40	..	..	..	..
11	..	..	..	..	..	..	..	..	0·01	..	..	..
12	..	..	..	..	1·35	..	..	0·02	..	..	..	..
13	..	..	..	..	0·14	..	0·02	0·10	0·15	..	..	..
14	..	..	..	..	0·05	..	..	0·02	..	..	..	..
15	..	..	..	..	..	0·27	0·06	0·58	..	..	..	..
16	..	..	..	..	..	0·09	0·03	0·23	..	..	..	..
17	..	..	..	..	..	0·29	0·04	0·19	0·01	..	..	..
18	..	..	..	..	..	0·56	..	0·27	0·04	..	..	..
19	..	..	..	..	..	4·45	0·01	0·02	..	..	..	..
20	..	..	..	..	0·01	1·90	..	0·85	..	..	..	..
21	..	..	..	..	0·02	0·04	0·50	0·16	..	..	..	..
22	..	..	0·11	..	0·02	0·74	0·10	0·42	0·36	..	..	..
23	..	..	..	..	..	0·02	0·24	0·17	0·62	..	..	..
24	..	..	..	..	..	0·03	..	0·27	..	..	..	..
25	..	..	..	..	0·77	0·01	0·21	..	..	..	..	..
26	..	..	..	..	0·02	..	0·08	0·01	..	..	..	..
27	..	..	..	..	1·05	..	0·05	..	..	..	..	..
28	..	..	..	..	4·98	0·09	0·14	..	..	..	..	..
29	..		..	..	1·29	..	..	0·02	..	..	..	..
30	..		..	..	2·44	..	0·02	..	..	..	..	..
31	..		..		0·35		0·07	0·05		..		..
Monthly Total.	..	..	1·46	..	11·17	10·65	4·31	4·80	3·06	..	0·09	..
Number of rainy days.	..	..	2	..	13	19	21	25	13	..	1	..

Inches.

Total fall of rain in the year .. 35·54
Total number of rainy days in the year .. 94
The greatest daily fall of rain in the year (that of 28th May) was 4·98
No rain fell in the months of January, February, April, October and December, nor on any of the days left blank in the above table.

Velocity of Wind, 1918.

Robinson Beckley's Anemograph.

TABLE VIa.—*Mean velocity of the wind in miles per hour, without regard to the direction from which it blew for each day of Bombay Civil Time; also the mean monthly velocity and its variation from the mean of the year.*

1918. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1 ..	6·9	6·5	5·6	7·0	4·0	7·9	4·9	12·5	4·6	6·0	5·1	5·3
2 ..	7·7	8·5	3·3	6·3	3·8	9·6	5·4	12·2	5·5	7·5	4·8	5·2
3 ..	7·4	8·2	3·7	6·5	5·6	7·9	6·6	12·6	4·3	6·3	5·4	4·9
4 ..	7·2	9·1	4·8	6·0	6·8	7·1	13·8	12·1	4·4	5·9	4·3	3·6
5 ..	6·4	10·4	4·4	5·8	5·5	8·6	13·7	12·6	4·5	5·4	6·0	7·9
6 ..	5·5	4·9	3·9	7·4	5·3	8·4	10·4	9·4	4·2	5·7	5·0	7·4
7 ..	5·9	5·8	4·2	9·2	4·7	7·9	7·5	6·6	3·5	5·7	8·0	9·3
8 ..	5·6	7·2	3·7	8·2	4·2	7·0	6·4	5·1	3·4	5·2	4·6	6·4
9 ..	6·5	6·0	4·7	9·1	5·3	7·6	6·6	5·8	4·6	4·2	4·1	7·1
10 ..	6·5	5·0	4·7	9·3	10·7	5·8	5·4	7·2	5·2	3·9	6·4	5·5
11 ..	5·2	5·0	4·4	10·6	9·4	5·5	5·7	9·9	3·2	3·2	4·5	6·5
12 ..	5·4	4·2	7·7	6·5	6·1	5·0	6·6	9·6	4·7	5·5	5·0	8·2
13 ..	5·6	6·2	5·6	7·0	7·2	3·5	7·0	12·4	2·8	4·8	5·3	9·0
14 ..	4·7	7·0	4·9	5·0	4·5	3·4	6·8	12·2	5·2	5·2	4·0	9·2
15 ..	7·5	7·7	7·2	4·8	3·0	3·8	6·4	10·7	4·6	4·6	4·9	7·0
16 ..	4·4	7·8	6·5	4·0	4·1	4·2	5·5	10·4	5·6	4·6	4·6	8·5
17 ..	4·1	9·2	7·2	4·5	5·0	6·7	5·9	11·6	4·9	4·4	5·5	7·6
18 ..	6·8	8·3	8·8	6·3	4·7	11·2	3·8	8·4	4·5	4·7	6·2	6·2
19 ..	10·3	7·7	8·7	7·3	4·7	7·5	3·6	11·4	4·1	3·9	8·2	5·7
20 ..	7·2	8·7	7·9	8·7	4·1	5·6	3·4	12·0	4·1	4·0	7·5	6·5
21 ..	5·7	6·6	6·8	8·7	4·8	4·1	5·0	9·5	3·2	4·8	6·1	7·0
22 ..	5·0	4·9	5·5	5·2	5·9	5·8	6·2	8·6	2·7	4·0	6·5	6·0
23 ..	9·4	3·6	11·3	5·2	5·3	9·2	7·4	9·2	3·3	4·5	7·0	7·0
24 ..	11·9	6·3	9·9	7·2	5·8	8·0	7·9	9·4	5·7	4·4	5·0	4·5
25 ..	12·6	6·5	8·2	6·1	6·8	7·1	6·5	7·3	7·4	4·1	5·2	5·0
26 ..	8·4	6·9	6·2	3·7	5·8	4·7	8·9	6·4	6·4	3·6	4·8	4·7
27 ..	6·5	6·8	4·8	3·7	7·0	4·3	10·4	5·5	5·8	4·6	4·1	4·2
28 ..	4·4	6·7	7·2	4·2	6·7	6·0	10·7	8·0	4·8	4·6	3·7	4·5
29 ..	4·2	..	8·3	3·8	7·0	9·0	12·1	10·1	4·0	5·7	3·8	4·7
30 ..	4·3	..	6·9	4·3	7·3	10·3	11·5	8·1	5·3	5·3	5·3	3·1
31 ..	3·4	..	6·5	..	7·0	..	9·1	7·8	..	4·5	..	4·5
Monthly Mean ..	6·5	6·9	6·3	6·4	5·8	6·7	7·5	9·5	4·6	4·9	5·4	6·2
Annual Variation.	+0·1	+0·5	−0·1	0·0	−0·6	+0·3	+1·1	+3·1	−1·8	−1·5	−1·0	−0·2

	Miles.
The mean velocity for June to August ..	7·9
The mean velocity for September to May ..	5·9
The mean velocity for the year	6·4

TABLE VIb.—*Showing the mean diurnal inequality of the velocity of the wind in miles per hour for each month of the year 1918, and for the whole year.*

1918. Bombay Civil Time, Hourly Intervals.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles
0 to 1	− 2·1	− 1·7	− 2·6	− 0·8	− 0·9	− 0·3	0·0	− 0·7	− 1·6	− 1·2	− 2·1	− 2·2	− 1·3
1 „ 2	− 2·2	− 1·4	− 1·9	− 1·3	− 0·5	+ 0·4	− 0·3	− 0·3	− 1·6	− 1·3	− 1·5	− 1·8	− 1·1
2 „ 3	− 1·5	− 1·0	− 2·1	− 1·6	− 0·7	+ 0·3	− 0·4	+ 0·1	− 1·2	− 1·3	− 0·7	− 1·7	− 1·0
3 „ 4	− 1·2	− 1·2	− 1·6	− 2·4	− 0·6	+ 0·3	+ 0·1	+ 0·2	− 0·4	− 1·2	− 0·2	− 1·7	− 0·8
4 „ 5	− 0·6	− 0·8	− 1·6	− 2·6	− 1·0	− 0·3	+ 0·2	+ 0·4	− 0·5	− 0·7	− 0·3	− 1·5	− 0·8
5 „ 6	0·0	− 1·3	− 1·6	− 2·6	− 1·4	+ 0·1	− 0·3	+ 0·6	− 0·2	− 0·2	− 0·3	− 1·3	− 0·7
6 „ 7	+ 0·1	− 1·2	− 2·1	− 2·7	− 1·3	− 0·5	− 0·1	+ 0·5	+ 0·4	− 0·2	− 0·2	− 1·3	− 0·7
7 „ 8	+ 0·3	− 1·8	− 1·1	− 2·0	− 1·5	− 0·6	− 0·8	+ 0·4	+ 1·0	− 0·2	+ 0·3	− 0·8	− 0·6
8 „ 9	+ 0·6	− 1·5	− 1·1	− 1·7	− 1·3	− 0·4	− 0·3	+ 0·1	+ 0·4	+ 0·3	+ 0·9	− 0·9	− 0·4
9 „ 10	+ 0·7	− 2·2	− 1·1	− 2·0	− 0·5	− 0·1	+ 0·2	+ 0·4	− 0·6	+ 0·2	− 0·1	− 1·1	− 0·5
10 „ 11	− 0·9	− 2·5	− 1·1	− 0·8	0·0	− 0·3	0·0	+ 0·9	− 0·7	− 0·7	− 1·5	− 1·8	− 0·5
11 „ 12	− 2·0	− 1·7	− 0·1	+ 0·4	+ 0·1	− 0·4	+ 0·4	− 0·2	− 0·6	− 1·2	− 2·2	− 1·6	− 0·8
12 „ 13	− 1·9	+ 0·2	+ 1·5	+ 1·7	+ 0·7	− 0·2	+ 0·4	+ 0·2	+ 0·5	+ 0·1	− 0·9	+ 0·3	+ 0·2
13 „ 14	− 0·8	+ 1·5	+ 2·5	+ 2·8	+ 1·5	+ 0·1	+ 0·1	+ 0·7	+ 1·3	+ 1·4	+ 0·8	+ 1·3	+ 1·1
14 „ 15	+ 0·9	+ 2·5	+ 3·1	+ 3·8	+ 2·2	0·0	+ 0·7	+ 1·0	+ 1·9	+ 2·6	+ 2·0	+ 2·5	+ 1·9
15 „ 16	+ 1·8	+ 3·2	+ 3·7	+ 4·2	+ 2·1	+ 0·5	+ 0·7	+ 0·7	+ 2·3	+ 3·2	+ 2·6	+ 3·1	+ 2·3
16 „ 17	+ 2·7	+ 3·5	+ 3·6	+ 3·6	+ 2·1	+ 0·4	+ 0·7	+ 0·3	+ 2·2	+ 2·9	+ 2·5	+ 3·7	+ 2·3
17 „ 18	+ 2·9	+ 3·7	+ 3·1	+ 2·5	+ 1·3	+ 0·8	+ 0·2	+ 0·1	+ 1·6	+ 1·9	+ 2·1	+ 3·9	+ 2·0
18 „ 19	+ 3·1	+ 3·7	+ 2·0	+ 1·7	+ 0·6	+ 0·7	− 0·2	− 0·1	+ 0·7	+ 1·0	+ 1·9	+ 3·6	+ 1·0
19 „ 20	+ 3·0	+ 2·9	+ 0·9	+ 0·9	+ 0·2	+ 0·5	− 0·1	− 0·4	− 0·2	− 0·1	+ 1·5	+ 2·6	+ 1·0
20 „ 21	+ 2·0	+ 1·0	+ 0·2	+ 0·2	− 0·4	0·0	− 0·2	− 0·6	− 0·9	− 1·4	+ 0·2	+ 1·0	+ 0·1
21 „ 22	− 0·5	− 1·2	− 0·8	− 0·3	− 1·0	− 0·1	− 0·8	− 1·4	− 1·3	− 1·6	− 1·1	− 0·5	− 0·9
22 „ 23	− 1·3	− 2·0	− 1·6	− 0·4	− 0·4	− 0·1	− 1·0	− 1·6	− 1·8	− 1·6	− 1·8	− 1·5	− 1·3
23 „ 24	− 2·1	− 1·8	− 1·9	− 0·8	− 0·7	− 0·2	− 0·5	− 1·3	− 1·8	− 1·4	− 2·3	− 2·3	− 1·4
Range.	5·3	6·2	5·8	6·9	3·7	1·4	1·7	2·6	4·1	4·8	4·9	6·2	3·7

Mean Daily Velocities of the North and East Components of the Wind, 1918.

Table VIc.—*Showing the Mean Velocities of the North or South and East or West Components of the Winds which blew on each day of the year 1918.*

In Miles per Hour.

1918.	Month.																							
Date.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.
1 ..	4·8 N	0·3 E	4·1 N	1·6 W	2·5 N	2·0 W	4·2 N	4·2 W	0·1 S	3·8 W	3·6 S	5·5 W	1·9 S	4·4 W	0·1 S	12·5 W	2·1 S	3·7 W	2·4 N	2·3 W	2·2 N	0·3 E	3.7 N	0·7 W
2 ..	5·4 N	1·6 E	6·9 N	4·1 W	1·9 S	1·2 W	3·4 N	3·6 W	0·2 N	3·5 W	2·7 S	9·0 W	1·9 S	4·8 W	2·5 S	11·7 W	0·7 N	3·0 W	5·7 N	3·5 W	2·6 N	0·2 W	4·1 N	1·5 W
3 ..	5·3 N	0·8 E	6·9 N	2·8 W	1·5 S	0·8 W	2·7 N	3·2 W	1·6 N	4·1 W	3·7 S	6·8 W	0·0	4·7 W	3·6 S	11·9 W	0·8 N	4·1 W	5·4 N	2·4 W	3·8 N	0·2 E	2·7 N	0·9 W
4 ..	4·9 N	0·8 E	7·6 N	3·7 W	1·4 N	1·8 W	3·0 N	4·1 W	2·3 N	4·7 W	2·8 S	6·5 W	2·6 S	13·2 W	3·1 S	11·5 W	0·6 S	4·2 W	3·9 N	4·1 W	1·4 N	0·6 W	2·1 N	0·3 E
5 ..	3·7 N	0·1 W	8·9 N	4·4 W	0·9 N	1·9 W	1·4 N	3·7 W	1·8 N	4·2 W	2·9 S	7·9 W	5·2 S	12·6 W	2·1 S	12·2 W	0·8 S	4·3 W	3·4 N	3·1 W	3·5 N	0·3 W	5·9 N	0·4 W
6 ..	2·8 N	0·3 E	3·4 N	1·3 W	1·5 S	0·6 W	4·2 N	5·9 W	0·7 N	4·5 W	2·9 S	7·8 W	4·0 S	9·6 W	3·0 S	8·7 W	0·7 S	4·1 W	4·5 N	2·8 W	0·8 N	0·6 W	5·2 N	2·5 E
7 ..	3·3 N	1·6 E	3·5 N	1·9 W	0·7 S	1·8 W	6·4 N	6·1 W	1·0 N	4·1 W	3·0 S	7·1 W	3·8 S	6·2 W	2·7 S	5·2 W	0·6 S	3·4 W	3·8 N	3·7 W	1·6 S	5·4 E	4·7 N	5·4 E
8 ..	2·4 N	1·0 E	5·8 N	2·9 W	1·4 S	1·9 W	6·2 N	3·6 W	0·1 N	3·6 W	1·1 S	6·8 W	3·5 S	5·2 W	2·1 S	4·6 W	1·3 S	1·8 W	3·4 N	2·9 W	3·4 N	1·5 E	4·5 N	0·1 W
9 ..	3·6 N	0·5 E	4·8 N	2·0 W	1·8 S	1·0 W	7·4 N	3·9 W	3·1 N	3·2 W	0·2 S	7·5 W	2·7 S	6·0 W	1·8 S	5·4 W	2·1 S	1·2 W	2·5 N	1·7 W	2·2 N	0·9 W	5·6 N	0·8 W
10 ..	3·0 N	0·6 E	1·5 N	0·8 E	0·1 S	1·3 W	7·3 N	4·3 W	5·1 N	4·4 W	0·7 S	5·6 W	2·6 S	4·5 W	1·9 S	6·6 W	1·9 S	0·1 W	0·2 S	0·3 W	4·6 N	0·7 W	3·8 N	0·6 W
11 ..	2·1 N	0·6 E	2·2 N	0·9 E	2·2 N	2·2 W	8·6 N	5·6 W	2·1 N	0·9 W	0·4 S	5·4 W	4·3 S	3·2 W	0·3 S	9·9 W	0·8 S	1·4 W	1·0 S	0·6 W	2·7 N	0·6 W	4·8 N	0·5 W
12 ..	2·7 N	1·2 E	0·7 N	0·3 W	3·6 S	3·2 E	3·9 N	3·7 W	2·9 N	0·3 E	0·3 N	4·9 W	2·7 S	6·0 W	1·0 S	9·4 W	1·7 S	1·0 W	0·9 S	0·1 E	3·0 N	0·7 W	6.4 N	0·7 W
13 ..	3·8 N	0·0	3·9 N	1·1 W	0·9 N	0·6 W	4·0 N	4·9 W	2·5 N	3·0 W	0·7 S	3·4 W	3·1 S	6·3 W	0·3 S	12·3 W	1·6 S	0·7 W	0·2 S	0·9 W	2·2 N	0·0	8·5 N	0·1 W
14 ..	2·3 N	0·2 E	5·4 N	2·2 W	2·2 N	1·6 W	1·2 N	3·5 W	0·1 S	1·5 W	1·6 S	2·3 W	4·7 S	4·7 W	1·3 S	12·0 W	2·1 S	0·0	0·1 S	0·5 W	1·0 S	0·4 W	8·7 N	1·8 W
15 ..	1·9 N	2·7 E	6·3 N	3·6 W	4·7 N	3·7 W	0·5 N	3·8 W	0·8 S	2·3 W	3·0 S	1·7 W	5·2 S	3·5 W	3·5 S	10·0 W	0·2 N	1·1 W	2·2 N	0·2 W	1·6 N	0·0	6·3 N	1·5 W
16 ..	2·1 N	0·3 W	6·1 N	3·6 W	3·2 N	2·2 W	0·9 S	1·8 W	0·9 S	3·9 W	3·9 S	1·0 W	4·4 S	3·1 W	2·4 S	9·8 W	3·4 N	2·3 W	1·9 N	0·1 E	1·4 N	0·2 E	7·8 N	2·5 W
17 ..	2·1 N	1·0 E	7·8 N	3·8 W	5·6 N	2·8 W	0·8 N	2·8 W	0·3 S	5·0 W	6·4 S	0·3 E	3·1 S	4·6 W	0·4 N	11·5 W	2·5 N	4·1 W	0·4 N	0·7 E	2·0 N	1·0 E	6·7 N	1·9 W
18 ..	4·6 N	1·3 W	6·8 N	3·9 W	6·5 N	4·4 W	2·9 N	4·4 W	0·2 S	4·6 W	10·3 S	3·9 E	1·3 S	3·4 W	1·0 N	8·0 W	0·8 N	2·7 W	1·2 N	1·0 E	3·8 N	0·4 W	5·3 N	1·1 W
19 ..	9·2 N	3·6 W	6·2 N	3·2 W	4·9 N	4·3 W	4·0 N	5·1 W	0·2 N	4·5 W	4·6 S	0·4 W	0·9 S	3·2 W	0·1 N	11·4 W	0·0	2·2 W	0·3 N	0·4 E	5·8 N	0·5 E	3·6 N	0·2 W
20 ..	5·7 N	0·2 E	7·3 N	4·3 W	5·3 N	4·3 W	6·0 N	5·6 W	1·1 S	3·8 W	2·8 S	1·3 W	1·3 S	3·1 W	2·7 S	11·5 W	0·5 S	0·6 W	0·7 N	0·9 W	4·1 N	2·7 E	5·3 N	1·0 W
21 ..	0·6 S	1·6 E	5·0 N	2·5 W	2·9 N	6·1 W	5·1 N	6·0 W	3·5 S	1·5 W	2·3 S	3·0 W	1·3 S	4·4 W	3·6 S	8·6 W	1·4 S	0·3 W	0·8 N	0·7 W	3·4 N	2·3 E	5·9 N	2·4 W
22 ..	1·8 N	0·6 W	3·3 N	1·1 W	0·8 N	5·1 W	0·9 N	3·6 W	4·6 S	0·6 W	3·0 S	3·6 W	1·4 S	6·0 W	3·5 S	7·8 W	0·5 S	0·9 E	0·5 N	0·5 E	3·7 N	1·2 E	4·4 N	1·3 W
23 ..	8·0 N	3·8 W	1·5 N	1·3 W	9·5 N	5·7 W	0·8 N	4·1 W	4·4 S	0·6 W	3·0 S	8·6 W	2·4 S	6·7 W	2·3 S	8·7 W	0·0	0·5 W	1·6 N	0·1 E	5·3 N	0·0	5·9 N	2·2 W
24 ..	10·2 N	4·9 W	4·5 N	3·0 W	7·9 N	1·5 W	4·1 N	4·6 W	4·4 S	0·3 W	3·1 S	7·4 W	2·5 S	7·2 W	1·0 S	9·1 W	2·4 N	1·6 W	0·2 S	0·7 E	2·7 N	0·8 E	2·8 N	0·8 W
25 ..	11·5 N	4·2 W	4·8 N	1·3 W	6·5 N	1·8 W	1·5 N	3·5 W	0·1 N	6·0 W	3·0 S	6·3 W	1·2 S	6·2 W	3·0 S	6·6 W	4·6 N	4·2 W	1·4 N	0·3 W	1·8 N	1·3 E	3·3 N	0·2 W
26 ..	7·5 N	1·6 W	5·7 N	3·3 W	3·2 N	1·1 W	2·1 S	2·4 W	3·7 S	4·0 W	1·5 S	4·4 W	0·3 S	8·8 W	1·0 S	6·1 W	3·2 N	3·5 W	1·8 S	0·0	1·6 N	0·7 E	2·6 N	0·3 E
27 ..	5·3 N	1·2 W	5·4 N	2·7 W	1·9 N	1·7 W	0·3 S	3·0 W	4·8 S	1·2 W	0·4 S	4·2 W	1·8 N	10·0 W	0·2 S	5·4 W	3·0 N	4·7 W	0·6 S	0·3 W	0·7 N	0·7 W	2·2 N	0·4 E
28 ..	1·6 N	0·6 W	4·9 N	3·3 W	5·4 N	4·3 W	0·4 S	1·9 W	5·2 S	0·2 W	1·3 N	5·3 W	0·7 N	10·6 W	0·6 N	7·8 W	1·6 N	4·3 W	1·7 N	0·0	0·9 N	2·1 W	1·4 N	0·4 E
29 ..	1·8 N	0·2 W			6·5 N	3·8 W	0·5 S	3·1 W	5·1 S	1·7 W	1·0 N	8·8 W	0·6 N	12·0 W	0·2 S	10·0 W	0·4 N	2·6 W	1·2 N	0·7 E	1·4 S	0·5 E	1·8 N	0 9 E
30 ..	1·4 N	0·9 E			4·8 N	4·1 W	0·3 N	4·1 W	6·3 S	1·4 W	0·6 S	10·2 W	1·0 S	11·2 W	2·3 S	7·7 W	0·6 S	1·8 W	2·1 N	1·2 E	2·3 N	0·9 W	0·1 S	0·2 E
31 ..	1·3 N	0·0			4·2 N	4·4 W			5·4 S	1·6 W			0·0	8·8 W	3·4 S	6·9 W			2·1 N	0·4 E			1·6 N	1·0 W
Monthly Mean.	4·1 N	0·2 W	5·0 N	2·4 W	2·6 N	2·5 W	2·9 N	4·0 W	0·9 S	2·9 W	2·4 S	5·0 W	2·1 S	6·6 W	1·7 S	9·1 W	0·1 N	2·3 W	1·5 N	0·8 W	2·3 N	0·3 E	4·4 N	0·5 W
Annual Variation.	2·8 N	2·8 E	3·7 N	0·6 E	1·3 N	0·5 E	1·6 N	1·0 W	2·2 S	0·1 E	3·7 S	2·0 W	3·4 S	3·6 W	3·0 S	6·1 W	1·2 S	0·7 E	0·2 N	2·2 E	1·0 N	3·3 E	3·1 N	2·5 E

The Velocities of the Mean Components for the year are 1·3 N and 3·0 W.

Table VI*d*.—*Showing the mean diurnal inequality of the velocity of the North or South and East or West Components of the wind for each month of the year 1918 and for the whole year.*

In miles per hour.

1918.	Month.																								Year.	
	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.			
Bombay Civil Time Hourly Intervals.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.
0 to 1 ..	0·3 S	0·7 E	0·6 S	1·4 E	0·1 S	1·6 E	0·8 N	0·7 E	0·1 S	1·5 W	0·2 S	0·8 E	0·2 S	0·1 W	0·5 S	0·8 E	0·3 N	0·1 E	0·7 S	1·7 E	1·1 S	1·5 E	1·0 S	1·3 E	0·3 S	0·7 E
1 „ 2 ..	0·7 S	1·2 E	0·7 S	1·3 E	0·1 S	1·2 E	0·5 N	1·4 E	0·5 N	2·3 W	0·4 S	0·4 E	0·3 S	0·3 E	0·3 S	0·3 E	0·6 N	0·2 E	0·9 S	1·6 E	1·1 S	2·1 E	1·0 S	1·7 E	0·3 S	0·8 E
2 „ 3 ..	0·9 S	2·0 E	0·4. S	1·6 E	0·3 S	1·4 E	0·5 N	2·2 E	0·3 N	1·8 W	0·1 S	0·6 E	0·1 S	0·3 E	0·2 S	0·1 W	0·0	0·7 E	1·0 S	2·4 E	0·8 S	2·8 E	1·1 S	2·0 E	0·3 S	1·2 E
3 „ 4 ..	1·0 S	2·4 E	0·1 N	1·6 E	1·0 S	2·6 E	0·3 S	3·3 E	0·2 N	2·7 E	0·3 N	0·0	0·2 S	0·4 W	0·2 S	0·2 W	0·2 S	0·9 E	0·8 S	2·5 E	1·2 S	3·4 E	1·2 S	2·6 E	0·5 S	1·8 E
4 „ 5 ..	0·8 S	3·6 E	0·6 N	2·0 E	1·0 S	3·0 E	0·5 S	3·9 E	1·0 N	2·6 E	0·2 N	0·0	0·2 S	0·3 W	0·4 S	0·3 W	0·7 S	2·9 E	0·4 S	3·1 E	0·7 S	3·4 E	1·1 S	2·7 E	0·3 S	2·2 E
5 „ 6 ..	0·8 S	4.3 E	0·1 S	3·0 E	1·0 S	4·0 E	0·6 S	4·0 E	0·8 N	2·7 E	0·1 N	0·0	0·3 S	0·2 E	0·3 S	0·5 W	0·9 S	3·7 E	1·1 S	3·9 E	0·8 S	3·7 E	1·3 S	3·4 E	0·5 S	2·7 E
6 „ 7 ..	0·9 S	4·7 E	0·5 S	3·4 E	1·3 S	3·7 E	1·0 S	4·4 E	0·3 N	3·1 E	0·3 N	1·2 E	0·2 N	0·0	0·4 S	0·4 W	1·2 S	4·7 E	1·2 S	4·6 E	0·6 S	3·8 E	1·6 S	3·7 E	0·7 S	3·1 E
7 „ 8 ..	1·3 S	5·2 E	1·5 S	4·0 E	1·5 S	4·3 E	1·0 S	5·1 E	0·5 N	2·4 E	0·1 N	1·8 E	0·1 S	0·8 E	0·2 N	0·4 W	2·0 S	5·2 E	1·3 S	4·7 E	0·9 S	4·8 E	1·8 S	4·5 E	0·9 S	3·5 E
8 „ 9 ..	1·5 S	5·6 E	1·4 S	4·5 E	1·2 S	4·6 E	1·2 S	4·6 E	0·1 S	2·0 E	0·1 S	1·0 E	0·1 S	0·5 E	0·0	0·0	1·5 S	4·6 E	1·3 S	4·6 E	0·7 S	5·3 E	2·2 S	4·7 E	0·9 S	3·5 E
9 „ 10 ..	1·6 S	5·4 E	2·5 S	4·1 E	1·0 S	3·5 E	1.8 S	3·3 E	1·1 S	1·2 E	0·4 S	0·5 E	0·3 S	0·2 E	0·5 N	0·4 W	0·8 S	3·1 E	0·9 S	3·4 E	0·9 S	4·4 E	2·7 S	4·9 E	1·1 S	2·8 E
10 „ 11 ..	1·9 S	3·7 E	2·8 S	2·4 E	0·5 S	2·2 E	0·9 S	0·0	0·9 S	0·3 W	0·1 S	0·6 E	0·6 S	0·6 E	0·0	0·7 W	0·6 S	1·2 E	0·9 S	1·6 E	1·2 S	3·0 E	2·5 S	3·0 E	1·1 S	1·4 E
11 „ 12 ..	2·1 S	1·7 E	2·6 S	0·4 W	1·0 S	0·9 W	0·5 S	1·7 W	0·3 S	1·3 W	0·0	0·2 E	0·1 S	0·1 W	0·0	0·3 E	0·4 S	0·5 W	0·7 S	0·0	1·2 S	0·7 E	1·7 S	0·5 W	0·9 S	0·2 W
12 „ 13 ..	1·9 S	0·9 W	1·2 S	2·9 W	0·5 S	3·8 W	0·5 S	3·2 W	0·2 N	2·3 W	0·5 S	0·6 E	0·1 S	0·5 W	0·3 S	0·2 W	0·0	2·1 W	0·4 S	2·8 W	1·0 S	2·5 W	0·6 S	3·1 W	0·6 S	2·0 W
13 „ 14 ..	1·8 S	3·6 W	0·1 S	4·1 W	0·3 N	4·5 W	0·2 S	4·3 W	0·4 N	3·4 W	0·1 N	0·5 W	0·4 N	0·3 W	0·0	0·6 W	0·3 N	3·3 W	0·2 N	4·8 W	0·7 S	4·5 W	0·2 N	4·5 W	0·1 S	3·2 W
14 „ 15 ..	0·8 S	6·0 W	1·0 N	4·7 W	0·8 N	5·1 W	0·2 N	5·1 W	0·5 N	4·1 W	0·3 N	0·7 W	0·1 N	0·8 W	0·1 N	1·0 W	0·4 N	3·8 W	1·0 N	5·9 W	0·1 N	6·2 W	1·0 N	5·4 W	0·4 N	4·1 W
15 „ 16 ..	0·3 N	6·3 W	1·7 N	5·0 W	1·1 N	5·6 W	0·6 N	5·6 W	0·2 N	3·8 W	0·1 N	1·2 W	0·6 N	0·9 W	0·9 N	0·7 W	0·9 N	4·2 W	1·6 N	6·2 W	0·4 N	6·4 W	2·0 N	5·6 W	0·9 N	4·8 W
16 „ 17 ..	1·8 N	6·2 W	2·3 N	4·8 W	1·5 N	5·6 W	0·7 N	4·9 W	0·6 N	4·3 W	0·0	0·9 W	0·7 N	0·8 W	0·2 N	0·4 W	1·4 N	3·9 W	1·7 N	6·0 W	1·9 N	6·2 W	3·3 N	4·9 W	1·3 N	4·1 W
17 „ 18 ..	2·5 N	5·8 W	2·6 N	4·8 W	1·7 N	4·5 W	0·9 N	3·6 W	0·3 N	3·3 W	0·4 N	1·6 W	0·1 N	0·3 W	0·3 N	0·2 W	1·4 N	3·2 W	2·1 N	4·7 W	2·1 N	5·4 W	4·2 N	4·2 W	1·5 N	3·5 W
18 „ 19 ..	3·4 N	5·0 W	2·9 N	4·4 W	1·8 N	3·3 W	1·1 N	2·4 W	0·1 S	2·1 W	0·2 N	1·2 W	0·1 N	0·0	0·3 N	0·1 E	1·0 N	2·4 W	2·4 N	3·3 W	3·1 N	4·5 W	4·4 N	3·6 W	1·7 N	2·7 W
19 „ 20 ..	4·1 N	4·1 W	3·3 N	2·5 W	1·7 N	2·5 W	0·7 N	1·4 W	0·2 S	1·4 W	0·1 N	0·9 W	0·1 N	0·1 W	0·7 N	0·4 E	0·9 N	1·5 W	2·2 N	2·0 W	3·3 N	3·7 W	3·7 N	2·9 W	1·7 N	1·9 W
20 „ 21 ..	3·5 N	3·0 W	1·9 N	1·0 W	1·2 N	0·3 E	0·2 N	1·0 W	0·7 S	0·4 E	0·3 N	0·5 W	0·2 S	0·1 E	0·2 N	0·5 E	0·9 N	0·9 W	1·0 N	0·7 W	2·5 N	2·2 W	2·4 N	1·9 W	1·1 N	0·8 W
21 „ 22 ..	1·4 N	0·6 W	0·2 N	1·2 E	0·4 N	1·3 E	0·1 N	0·4 W	0·6 S	1·1 E	0·1 N	0·2 W	0·3 S	0·7 E	0·0	1·5 E	0·3 N	0·6 W	1·0 N	0·1 W	1·0 N	0·3 E	0·9 N	0·1 W	0·4 N	0·3 E
22 „ 23 ..	0·5 N	0·1 W	0·4 S	2·0 E	0·3 N	1·5 E	0·7 N	0·0	0·5 S	1·9 E	0·1 S	0·0	0·2 S	0·4 E	0·4 S	1·7 E	0·7 N	0·1 W	0·4 N	0·3 E	0·5 S	1·4 E	0·2 S	1·0 E	0·0	0·8 E
23 „ 24 ..	0·4 S	0·7 E	0·7 S	2·1 E	0·2 N	1·0 E	0·9 N	0·5 E	0·6 S	1·8 E	0·4 S	0·6 E	0·2 S	0·4 E	0·5 S	1·5 E	0·4 N	0·2 W	0·7 S	1·7 E	0·8 S	1·4 E	1·0 S	1·3 E	0·3 S	1·1 E

Aggregate and Mean Velocities and Relative Frequency of Different Winds, 1918.

Table VIe.—*Showing for the year 1918 the sums of the Velocities, and the Mean Velocities, in miles per hour, of the Winds which blew in each Month, from each of the sixteen Principal Directions and also the number of hourly Observations which those sums comprise; the latter numbers indicating the Relative Frequency of the same Wind (as to direction) in the several Months, and of different Winds during the same Month.*

1918.	N.			N. N. E.			N. E.			E. N. E.			E.			E. S. E.			S. E.			S. S. E.		
Month.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.
	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Milcs.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.
January ..	475	74	6·4	243	68	3·6	281	53	5·3	767	134	5·7	274	60	4·6	170	30	5·7	0	0	0	0	0	0
February ..	578	102	5·7	169	42	4·0	53	16	3·3	236	55	4·3	39	11	3·5	83	18	4·6	29	12	2·4	0	0	0
March ..	214	45	4·8	174	40	4·3	143	35	4·1	167	38	4·4	131	21	6·2	121	22	5·5	103	22	4·7	91	23	4.0
April ..	167	33	5·1	136	35	3·9	36	10	3·6	56	14	4·0	40	9	4·4	36	12	3·0	48	12	4·0	11	4	2.7
May ..	36	6	6·0	74	12	6·2	66	15	4·4	53	9	5·9	3	1	3·0	124	12	10·3	104	15	6·9	423	63	6.7
June ..	0	0	0·0	0	0	0·0	0	0	0·0	3	1	3·0	0	0	0·0	13	2	6·5	106	11	9·6	350	36	9.7
July ..	3	1	3·0	0	0	0·0	1	1	1·0	0	0	0·0	0	0	0·0	17	4	4·2	0	0	0·0	4	1	4.0
August ..	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0.0
September ..	6	2	3·0	21	6	3·5	20	7	2·9	73	17	4·3	32	7	4·6	300	51	5·9	250	47	5·3	65	18	3.6
October ..	63	17	3·7	128	40	3·2	53	16	3·3	314	67	4·7	186	45	4·1	439	93	4·7	130	30	4·3	37	13	2.8
November ..	82	18	4·6	183	44	4·2	332	76	4·4	859	175	4·9	161	32	5·0	247	51	4·8	109	17	6·4	15	6	2·5
December ..	431	81	5·3	327	81	4·0	298	72	4·1	698	131	5·3	53	13	4·1	60	17	3·5	6	2	3·0	12	4	3·0
Year ..	2055	379	5·4	1455	368	4·0	1283	301	4·3	3226	641	5·0	919	199	4·6	1610	312	5·2	885	168	5·3	1008	168	6·0

1918.	S.			S. S. W.			S. W.			W. S. W.			W.			W. N. W.			N. W.			N. N. W.			Number of Observations.	
Month.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Calm.	Variable.
	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.		
January ..	2	1	2·0	0	0	0	2	1	2·0	12	3	4·0	143	25	5·7	421	75	5·6	784	84	9·3	1284	136	9·4	0	0
February ..	0	0	0	0	0	0	3	1	3·0	11	3	3·7	22	5	4·4	288	45	6·4	1802	190	9·5	1294	172	7·5	0	0
March ..	58	13	4·5	82	17	4·8	67	18	3·7	134	29	4·6	354	65	5·4	845	120	7·0	1319	139	9·5	646	91	7·1	5	1
April ..	42	10	4·2	69	20	3·4	29	14	2·1	79	18	4·4	661	103	6·4	1360	206	6·6	1218	130	9·4	616	84	7·3	6	0
May ..	289	46	6·3	253	51	5·0	249	52	4·8	489	102	4·8	1097	177	6·2	577	95	6·1	240	47	5·1	203	33	6·2	8	0
June ..	194	35	5·5	215	50	4·3	233	53	4·4	2143	301	7·1	1392	197	7·1	193	33	5·8	4	1	4·0	0	0	0·0	0	0
July ..	22	5	4·4	266	52	5·1	626	109	5·7	2610	366	7·1	1695	173	9·8	292	31	9·4	0	0	0·0	7	1	7·0	0	0
August ..	0	0	0·0	17	5	3·4	166	34	4·9	3145	349	9·0	3587	339	10·6	122	14	8·7	21	3	7·0	0	0	0·0	0	0
September ..	1	1	1·0	28	9	3·1	59	18	3·3	376	103	3·7	878	195	4·5	732	150	4·9	379	60	6·3	59	20	2·9	9	0
October ..	38	19	2·0	18	8	2·2	3	1	3·0	76	17	4·5	228	45	5·1	786	127	6·2	653	91	7·2	468	112	4·2	3	0
November ..	30	12	2·5	0	0	0·0	0	0	0·0	25	5	5·0	196	37	5·3	531	93	5·7	630	79	8·0	471	71	6·6	4	0
December ..	0	0	0·0	0	0	0·0	0	0	0·0	37	13	2·8	66	12	5·5	214	37	5·8	772	97	8·0	1644	182	9·0	2	0
Year ..	676	142	4·8	948	212	4·5	1437	301	4·8	9137	1309	7·0	10319	1373	7·5	6361	1026	6·2	7822	921	8·5	6692	902	7·4	37	1

Velocity of Wind, 1918.

DINES' ANEMOGRAPH.

Table VI*f*.—*Mean Velocity of the Wind in miles per hour, for each day of Bombay Civil Time, also the mean Monthly Velocity and its variation from the mean of the year.*

1918. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1 ..	6·5	6·4	5·6	7·2	4·0	6·1	4·3	11·3	4·2	6·0	5·3	5·1
2 ..	7·2	8·2	3·5	6·6	4·1	8·3	4·5	11·1	5·3	7·6	5·0	4·9
3 ..	7·0	7·7	3·7	6·5	5·6	6·7	6·0	11·3	4·1	6·5	5·6	4·7
4 ..	6·6	8·7	5·1	6·1	6·8	6·1	12·8	11·0	3·9	5·9	4·2	3·5
5 ..	6·1	10·0	4·5	5·7	5·6	7·2	12·4	11·4	4·1	5·5	6·2	7·7
6 ..	5·2	4·5	3·8	7·3	5·4	7·1	9·3	8·3	4·0	5·9	5·1	7·0
7 ..	5·7	5·4	4·1	9·2	4·9	6·9	6·7	5·2	3·3	5·8	8·3	8·9
8 ..	5·5	6·8	3·8	8·2	4·2	5·8	5·9	4·6	3·4	5·2	4·9	6·1
9 ..	6·2	5·6	4·5	9·0	5·2	6·7	5·7	5·2	4·6	4·2	4·2	7·0
10 ..	6·1	4·6	4·7	9·2	10·7	5·1	4·8	6·5	4·9	3·7	6·3	5·5
11 ..	5·0	4·7	4·5	10·5	9·5	4·8	5·4	9·1	3·4	3·1	4·9	6·3
12 ..	5·2	3·9	7·9	6·3	6·1	4·8	5·9	8·7	4·7	5·5	5·2	7·8
13 ..	5·4	5·8	5·2	6·9	6·8	3·8	6·4	11·4	3·1	4·7	5·6	9·0
14 ..	4·2	6·6	4·6	4·7	4·3	3·4	6·5	11·1	5·5	5·2	3·9	9·0
15 ..	6·9	7·3	7·2	4·7	2·7	3·7	6·5	9·7	4·7	4·7	5·0	6·8
16 ..	4·1	7·4	6·5	3·7	3·5	4·3	5·6	9·6	6·0	4·4	4·7	8·1
17 ..	4·0	8·7	7·2	4·5	4·5	7·1	5·5	10·9	5·1	4·2	5·6	7·2
18 ..	6·6	7·8	8·7	6·2	4·2	12·0	3·7	8·1	4·7	4·7	6·2	6·0
19 ..	9·9	7·3	8·6	7·2	4·5	7·0	3·7	10·5	4·3	4·0	7·9	5·5
20 ..	7·0	8·2	8·0	8·5	4·0	5·8	3·3	10·9	4·2	3·8	7·2	6·1
21 ..	5·5	6·2	6·7	8·6	5·1	3·4	4·7	9·0	3·3	4·9	5·8	6·9
22 ..	4·7	4·5	4·9	5·0	6·0	5·8	5·9	7·9	3·1	4·0	6·2	5·7
23 ..	9·5	3·2	11·0	5·1	5·5	8·0	6·7	8·3	3·5	4·7	6·6	7·2
24 ..	11·5	5·9	9·5	7·0	6·0	7·0	7·0	8·5	5·7	4·2	4·6	4·5
25 ..	12·5	6·2	7·7	6·1	6·0	6·2	5·9	6·6	7·4	4·2	4·7	5·0
26 ..	7·9	6·7	5·9	3·5	5·3	4·1	8·1	5·7	6·5	3·5	4·6	4·7
27 ..	6·5	6·5	4·3	3·5	7·0	4·6	9·9	4·8	5·8	4·5	3·8	4·2
28 ..	4·4	6·5	7·2	4·1	6·7	5·7	9·9	7·3	4·9	4·6	3·5	4·6
29 ..	4·0		8·5	4·0	6·6	8·3	11·4	9·0	4·0	5·7	3·8	4·9
30 ..	4·2		7·0	4·5	7·2	9·4	10·5	7·2	5·2	5·5	5·0	3·0
31 ..	3·3		6·5		6·7		8·2	7·1		5·0		4·7
Monthly mean.	6·3	6·5	6·2	6·3	5·6	6·1	6·9	8·6	4·6	4·9	5·3	6·0
Annual Variation.	+0·2	+0·4	+0·1	+0·2	−0·5	0·0	+0·8	+2·5	−1·5	−1·2	−0·8	−0·1

	Miles.
The mean velocity for June to August	.. 7·2
The mean velocity for September to May	.. 5·7
The mean velocity for the year	.. 6·1

Table VI*g*.—*Showing the mean diurnal inequality of the Velocity of the Wind in miles per hour for each month of the year 1918 and for the whole year.*

1918. Bombay Civil Time Hourly Intervals.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
0 to 1	−1·9	−1·6	−2·0	−0·9	−0·7	−0·3	0·0	−0·6	−1·3	−1·2	−1·9	−2·0	−1·2
1 „ 2	−2·1	−1·2	−2·0	−0·9	−0·3	+0·5	−0·4	0·0	−1·2	−1·1	−1·4	−1·7	−1·0
2 „ 3	−1·6	−1·0	−1·9	−1·5	−0·4	+0·4	−0·4	0·0	−1·0	−1·0	−0·5	−1·5	−0·9
3 „ 4	−1·2	−1·1	−1·8	−2·1	−0·5	+0·1	+0·1	+0·1	−0·5	−1·0	−0·3	−1·7	−0·8
4 „ 5	−0·7	−0·9	−1·5	−2·4	−0·8	−0·4	+0·1	+0·3	−0·4	−0·8	−0·4	−1·4	−0·8
5 „ 6	−0·3	−1·2	−1·8	−2·3	−1·3	+0·1	−0·1	+0·7	−0·2	−0·3	−0·3	−1·4	−0·7
6 „ 7	0·0	−1·3	−1·9	−2·6	−1·1	−0·3	−0·3	+0·5	+0·2	−0·1	−0·2	−1·3	−0·7
7 „ 8	−0·1	−1·8	−1·1	−1·9	−1·1	−0·5	−0·4	+0·4	+0·8	−0·2	+0·3	−0·9	−0·5
8 „ 9	+0·3	−1·5	−1·1	−1·7	−0·6	−0·5	−0·1	+0·2	+0·3	+0·3	+0·7	−1·0	−0·4
9 „ 10	+0·3	−2·1	−1·0	−1·7	−0·3	−0·2	+0·1	+0·4	−0·4	0·0	0·0	−1·1	−0·5
10 „ 11	−1·2	−2·5	−0·9	−0·7	0·0	−0·1	+0·1	+0·5	−0·8	−0·7	−1·4	−1·9	−0·8
11 „ 12	−1·9	−1·5	−0·1	+0·3	+0·1	−0·3	+0·5	+0·1	−0·6	−0·9	−1·6	−1·4	−0·6
12 „ 13	−1·8	+0·1	+1·6	+1·6	+0·6	−0·1	+0·3	+0·3	+0·4	0·0	−0·8	+0·3	+0·2
13 „ 14	−0·6	+1·4	+2·5	+2·5	+1·2	+0·2	+0·5	+0·8	+1·3	+1·3	+0·9	+1·5	+1·1
14 „ 15	+0·9	+2·5	+3·1	+3·3	+1·8	+0·1	+0·5	+0·8	+1·7	+2·4	+1·8	+2·2	+1·8
15 „ 16	+1·6	+3·1	+3·7	+3·7	+1·8	+0·3	+0·6	+0·9	+2·0	+3·0	+2·3	+3·1	+2·2
16 „ 17	+2·5	+3·5	+3·6	+3·5	+1·7	+0·4	+0·6	+0·3	+2·1	+2·7	+2·5	+3·6	+2·2
17 „ 18	+2·7	+3·6	+3·0	+2·5	+0·9	+0·6	+0·1	+0·2	+1·6	+1·8	+2·0	+3·9	+1·9
18 „ 19	+3·1	+3·8	+1·9	+1·6	+0·6	+0·4	−0·2	−0·2	+0·6	+1·1	+1·0	+3·7	+1·5
19 „ 20	+2·9	+3·0	+1·0	+0·7	+0·4	+0·3	−0·1	−0·2	−0·3	−0·1	+1·4	+2·6	+1·0
20 „ 21	+2·0	+0·6	+0·2	+0·4	−0·2	+0·2	−0·3	−0·8	−0·8	−1·4	+0·5	+1·2	+0·1
21 „ 22	−0·4	−1·0	−0·8	−0·2	−0·6	−0·1	−0·6	−1·2	−1·2	−1·4	−1·1	−0·5	−0·8
22 „ 23	−1·2	−1·9	−1·6	−0·3	−0·2	−0·3	−0·6	−1·5	−1·5	−1·4	−1·6	−1·4	−1·1
23 „ 24	−1·9	−1·6	−1·9	−0·5	−0·2	0·0	−0·3	−1·2	−1·6	−1·3	−2·0	−2·0	−1·2
Range.	5·2	6·3	5·7	6·3	3·1	1·1	1·2	2·4	3·7	4·4	4·5	5·9	3·4

Temperature of the Ground, 1918.

Table VII.—*Showing for each Month the Mean Temperature of the Ground in the thermometer shed and its Annual Variation at the respective depths of* 1, 9, 20, 60, *and* 132 *inches below the surface.*

Depth.	1 Inch.		9 Inches.		20 Inches.		60 Inches.		132 Inches.	
Month.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.
	°	°	°	°	°	°	°	°	°	°
January ..	76·8	− 5·4	78·1	− 4·9	82·2	− 3·6	83·1	− 2·5	82·7	− 1·1
February ..	77·7	− 4·5	78·5	− 4·5	82·3	− 3·5	83·2	− 2·4	82·8	− 1·0
March ..	81·5	− 0·7	81·7	− 1·3	84·1	− 1·7	83·8	− 1·8	83·0	− 0·8
April ..	82·9	+ 0·7	83·2	+ 0·2	85·1	− 0·7	84·3	− 1·3	83·3	− 0·5
May ..	85·9	+ 3·7	86·0	+ 3·0	87·9	+ 2·1	85·7	+ 0·1	84·1	+ 0·3
June ..	84·7	+ 2·5	85·6	+ 2·6	88·1	+ 2·3	86·8	+ 1·2	84·2	+ 0·4
July ..	84·7	+ 2·5	85·7	+ 2·7	88·1	+ 2·3	87·0	+ 1·4	84·3	+ 0·5
August ..	83·4	+ 1·2	84·7	+ 1·7	87·6	+ 1·8	86·9	+ 1·3	84·1	+ 0·3
September ..	83·3	+ 1·1	84·0	+ 1·0	86·7	+ 0·9	86·8	+ 1·2	84·2	+ 0·4
October ..	84·5	+ 2·3	84·8	+ 1·8	87·1	+ 1·3	86·9	+ 1·3	84·4	+ 0·6
November ..	83·4	+ 1·2	83·9	+ 0·9	86·7	+ 0·9	86·6	+ 1·0	84·2	+ 0·4
December ..	78·0	− 4·2	79·6	− 3·4	83·8	− 2·0	85·9	+ 0·3	84·0	+ 0·2
Year ..	82·2		83·0		85·8		85·6		83·8	

Maxima and Minima of different Meteorological Elements, 1918.

Table VIII.—*In which are collected the individual observations in each month of the year which showed the greatest and the least values of the following elements, viz., Height of Barometer (corrected for Temperature), Temperature of Air, Pressure of Vapour and additional Capacity of Air.*

1918.	Height of Barometer.			Temperature of Air.			Pressure of Vapour.			Additional Capacity.		
Month.	Greatest.	Least.	Range.	Greatest.	Least.	Range.	Greatest.	Least.	Range.	Greatest.	Least.	Range.
	In.	In.	In.	°	°	°	In.	In.	In.	In.	In.	In.
January ..	30·048	29·818	0·230	85·4	62·8	22·6	0·823	0·293	0·530	0·695	0.091	0·604
February ..	·086	·834	·252	86·2	61·7	24·5	·840	·253	·587	·665	·074	·591
March ..	29·978	·732	·246	88·2	66·9	21·3	·965	·306	·659	·905	·061	·844
April ..	·956	·684	·272	87·7	72·4	15·3	·961	·448	·513	·613	·088	·525
May ..	·826	·554	·272	90·8	76·4	14·4	1·024	·706	·318	·521	·037	·484
June ..	·852	·568	·284	87·8	76·7	11·1	1·003	·812	·191	·399	·037	·362
July ..	·863	·557	·306	87·2	77·1	10·1	0·973	·749	·224	·399	·076	·323
August ..	·861	·599	·262	85·9	77·1	8·8	·981	·780	·201	·364	·064	·300
September ..	·946	·716	·230	86·2	75·4	10·8	·947	·717	·230	·439	·037	·402
October ..	·992	·761	·231	92·7	75·9	16·8	1·026	·529	·497	·902	·062	·840
November ..	·985	·710	·275	91·4	72·8	18·6	0·993	·405	·588	1·045	·091	·954
December ..	30·081	·843	·238	87·1	65·7	21·4	·819	·286	·533	0·778	·090	·688
Year ..	30.086	29·554	0·532	92·7	61·7	31·0	1·026	0·253	0·773	1·045	0·037	1·008

Relative humidity of the air, 1918.

Table IX*a*.—*Daily and monthly means of observations taken at 6, 10, 14, 16 and 22 hours daily.*

Complete Saturation=1·000.

1918. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1 ..	0·674	0·709	0·736	0·693	0·767	0·858	0·761	0·795	0·865	0·763	0·627	0·738
2 ..	·653	·677	·817	·658	·756	·778	·823	·867	·862	·797	·627	·677
3 ..	·612	·649	·827	·676	·750	·786	·833	·857	·792	·787	·671	·728
4 ..	·638	·529	·752	·700	·782	·756	·902	·833	·750	·791	·729	·712
5 ..	·691	·473	·733	·723	·756	·787	·834	·817	·748	·815	·700	·586
6 ..	·745	·622	·819	·735	·722	·770	·814	·828	·753	·748	·773	·564
7 ..	·659	·737	·811	·553	·737	·816	·800	·832	·752	·761	·760	·576
8 ..	·657	·676	·799	·576	·730	·785	·807	·808	·808	·772	·759	·581
9 ..	·616	·670	·758	·608	·761	·758	·794	·788	·786	·822	·771	·590
10 ..	·641	·598	·791	·640	·808	·747	·787	·837	·783	·836	·706	·606
11 ..	·672	·714	·739	·653	·753	·743	·786	·809	·763	·836	·709	·619
12 ..	·666	·788	·799	·672	·750	·750	·776	·798	·769	·823	·629	·618
13 ..	·674	·727	·665	·726	·757	·745	·799	·795	·787	·808	·656	·517
14 ..	·745	·667	·719	·752	·842	·750	·797	·799	·770	·776	·741	·549
15 ..	·665	·656	·749	·784	·783	·758	·774	·824	·769	·712	·763	·602
16 ..	·679	·721	·765	·772	·753	·768	·775	·866	·773	·664	·704	·596
17 ..	·683	·710	·684	·788	·755	·798	·784	·849	·760	·697	·606	·588
18. ..	·717	·780	·720	·754	·730	·891	·777	·846	·766	·731	·577	·673
19 ..	·613	·723	·710	·760	·740	·930	·766	·829	·751	·749	·523	·741
20 ..	·689	·658	·745	·714	·736	·922	·749	·856	·790	·794	·531	·737
21 ..	·656	·686	·675	·739	·767	·811	·800	·834	·767	·814	·570	·667
22 ..	·782	·721	·735	·783	·759	·875	·787	·842	·843	·725	·603	·710
23 ..	·576	·734	·535	·773	·780	·804	·823	·825	·823	·708	·549	·695
24 ..	·505	·699	·450	·745	·780	·796	·778	·858	·787	·701	·607	·667
25 ..	·518	·640	·480	·772	·825	·777	·792	·829	·780	·779	·615	·664
26 ..	·598	·714	·583	·813	·770	·776	·794	·803	·818	·796	·691	·665
27 ..	·681	·671	·674	·794	·858	·786	·777	·790	·808	·804	·738	·709
28 ..	·765	·685	·693	·793	·906	·773	·790	·768	·781	·750	·754	·698
29 ..	·753		·593	·780	·863	·745	·753	·804	·744	·618	·771	·734
30 ..	·736		·732	·782	·885	·748	·763	·789	·733	·653	·758	·744
31 ..	·739		·784		·850		·789	·811		·678		·790
Monthly Mean .	0·668	0·680	0·712	0·724	0·781	0·793	0·793	0·822	0·783	0·758	0·674	0·656
Annual Variation.	−·069	−·057	−·025	−·013	+·044	+·056	+·056	+·085	+·046	+·021	−·063	−·081

Annual mean .. .. .. 0·737

Extent of cloudy sky, 1918.

Table IX*b*.—*Daily and monthly means of observations taken at 6, 10, 14, 16 and 22 hours daily, the whole sky being reckoned as* 10·0.

1918. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1 ..	..	1·4	..	..	1·6	9·2	7·2	8·8	9·2	2·2	..	0·8
2 ..	..	0·4	0·8	..	2·4	6·2	7·8	10·0	9·4	2·4	2·4	1·0
3 ..	0·2	..	..	0·6	1·8	6·6	9·2	10·0	6·0	3·0	4·6	1·4
4 ..	0·4	..	1·4	0·6	0·4	4·0	10·0	10·0	4·0	1·6	4·4	2·0
5 ..	0·8	..	1·2	2·6	3·2	8·8	10·0	10·0	6·0	1·2	4·4	0·6
6 ..	1·0	..	1·0	2·8	1·4	4·6	10·0	9·8	6·0	1·8	5·0	..
7 ..	..	..	1·8	..	2·8	7·8	9·0	9·6	7·0	3·0	10·0	1·0
8 ..	..	..	2·6	..	3·2	3·8	7·8	6·4	5·6	4·0	10·0	1·0
9 ..	..	..	2·8	..	5·4	6·8	5·6	7·4	5·0	3·2	9·6	0·2
10 ..	..	..	0·6	..	9·0	4·8	6·4	9·4	4·6	3·8	4·4	1·2
11 ..	..	..	6·8	0·4	6·2	3·8	5·6	8·0	4·4	0·8	2·8	..
12 ..	..	..	7·0	1·0	7·8	4·2	5·8	6·6	4·6	1·8	1·0	0·2
13 ..	0·4	..	4·0	..	6·8	4·8	7·0	9·4	5·4	0·8	0·6	..
14 ..	0·6	..	0·8	..	8·8	5·4	8·4	9·0	3·4	..	2·6	..
15 ..	2·2	..	0·8	1·2	5·2	5·0	6·2	8·0	5·6	..	2·2	0·6
16 ..	..	..	2·8	4·6	4·8	6·6	6·4	10·0	8·0	..	0·4	1·4
17 ..	5·6	..	0·4	4·0	4·8	8·0	7·8	10·0	9·8	..	0·2	2·4
18 ..	1·4	..	..	3·4	2·6	10·0	5·6	9·6	5·0	0·8	0·6	..
19 ..	0·2	3·2	0·4	1·2	3·4	9·8	4·8	9·6	5·2	..	0·6	0·4
20 ..	2·4	..	..	0·2	4·2	10·0	4·0	10·0	6·2	1·4	3·0	4·6
21 ..	6·2	2·2	0·8	..	5·2	8·2	6·2	10·0	6·8	..	1·6	2·4
22 ..	4·0	6·6	5·0	1·0	4·4	10·0	5·4	9·4	9·2	..	1·2	2·8
23 ..	2·4	6·0	2·4	1·2	6·4	7·0	6·6	9·4	6·8	..	0·6	2·2
24 ..	3·8	1·6	..	2·6	7·6	7·4	4·8	10·0	4·4	..	1·8	0·8
25 ..	1·4	1·2	..	1·2	7·8	6·2	6·6	7·4	3·4	..	1·0	..
26 ..	4·0	..	..	3·4	8·2	6·6	7·8	7·4	4·8	..	2·6	0·8
27 ..	2·2	..	..	4·4	9·4	6·6	6·4	9·0	2·8	..	2·8	1·4
28 ..	2·4	1·6	0·4	3·6	9·0	5·4	6·2	9·6	5·2	..	2·4	3·0
29 ..	1·0		..	2·6	9·2	7·0	6·4	9·0	2·6	..	4·0	3·0
30 ..	1·6		..	2·4	9·8	9·6	9·8	6·8	2·6	..	2·0	5·4
31 ..	1·0		0·2		9·0		9·0	6·2		..		7·2
Monthly Mean	1·5	0·9	1·4	1·5	5·5	6·8	7·1	8·9	5·6	1·0	3·0	1·5
Annual Variation.	−2·2	−2·8	−2·3	−2·2	+1·8	+3·1	+3·4	+5·2	+1·9	−2·7	−0·7	−2·2

For the days which have no entry, 0·0 is to be understood.

Mean of the months from January to April, November and December .. 1·6
Mean of the months from May to October .. .. .. 5·8
Mean of the year .. .. .. 3·7

Meteorological data, 1918.

Table X.—*Five-day Means.*

Number of Five-day Period.	Barometric Pressure.	Temperature of the Air.	Pressure of Vapour.	Additional Capacity of the Air.	Rainfall.*	North or South Component of Wind.	East or West Component of Wind.	Number of Five-day Period.	Barometric Pressure.	Temperature of the Air.	Pressure of Vapour.	Additional Capacity of the Air.	Rainfall.*	North or South Component of Wind.	East or West Component of Wind.
	In.	°	In.	In.	In.	Miles.	Miles.		In.	°	In.	In.	In.	Miles.	Miles.
1 ..	29·956	73·5	0·541	0·293	..	4·8 N	0·7 E	38 ..	29·700	82·6	0·898	0·215	0·47	3·8 S	7·9 W
2 ..	·909	73·3	·553	·275	..	3·0 N	0·8 E	39 ..	·754	83·2	·899	·239	·02	3·5 S	4·9 W
3 ..	·915	74·5	·594	·267	..	2·6 N	0·9 E	40 ..	·779	82·9	·888	·240	0·14	3·0 S	3·6 W
4 ..	·898	73·5	·564	·267	..	4·7 N	0·8 W	41 ..	·788	82·5	·877	·237	0·84	1·8 S	5·5 W
5 ..	·919	73·4	·523	·309	..	6·2 N	2·4 W	42 ..	·752	82·5	·879	·233	0·48	0·3 N	9·5 W
6 ..	·911	74·6	·616	·248	..	3·5 N	0·5 W	43 ..	·696	81·4	·877	·197	0·74	1·4 S	11·2 W
7 ..	·942	74·9	·588	·284	..	5·4 N	2·4 W	44 ..	·710	81·9	·903	·186	0·34	2·6 S	8·4 W
8 ..	·928	71·4	·493	·281	..	5·3 N	2·5 W	45 ..	·773	81·9	·887	·203	0·55	1·1 S	8·7 W
9 ..	·976	75·9	·643	·259	..	2·7 N	0·4 W	46 ..	·686	81·2	·896	·170	1·29	1·2 S	10·3 W
10 ..	·985	73·5	·604	·225	..	6·6 N	3·6 W	47 ..	·695	80·8	·888	·161	1·62	2·4 S	9·6 W
11 ..	·944	76·1	·639	·264	..	4·3 N	2·4 W	48 ..	·747	81·5	·877	·202	0·28	0·9 S	7·0 W
12 ..	·910	78·5	·672	·307	..	4·7 N	2·5 W	49 ..	·769	80·3	·855	·181	0·93	1·5 S	6·3 W
13 ..	·896	80·0	·817	·212	..	0·5 S	1·3 W	50 ..	·777	81·3	·822	·250	0·07	0·4 S	4·0 W
14 ..	·888	81·2	·852	·218	..	0.4 S	1·6 W	51 ..	·848	81·0	·828	·233	0·95	1·6 S	1·1 W
15 ..	·876	80·3	.781	·258	1·35	1·5 N	1·0 W	52 ..	·864	81·9	·841	·249	0·16	0·5 N	1·6 W
16 ..	·848	80·6	·749	·299	..	5.0 N	4·4 W	53 ..	·863	81·1	·835	·227	0·40	0·3 S	1·0 W
17 ..	·839	76·8	·527	·405	0·11	5·6 N	3.0 W	54 ..	·842	80·5	·840	·203	0·62	2·6 N	2·9 W
18 ..	·814	79·4	·703	·306	..	4·6 N	3·7 W	55 ..	·848	81·2	·821	·245	..	1·9 N	2·9 W
19 ..	·835	77·6	·659	·292	..	2·9 N	3·8 W	56 ..	·867	81·7	·866	·220	..	4·2 N	3·2 W
20 ..	·833	79·4	·638	·372	..	6·3 N	4·8 W	57 ..	·877	82·5	·930	·182	..	0·8 N	1·1 W
21 ..	·844	80·4	·759	·286	..	3·6 N	4·3 W	58 ..	·859	83·1	·857	·280	..	0·8 N	0·2 W
22 ..	·833	80·6	·806	·244	..	2·6 N	3·9 W	59 ..	·852	82·7	·882	·242	..	0·7 N	0·1 E
23 ..	·797	82·0	·847	·252	..	2·5 N	4·4 W	60 ..	·859	82·0	·848	·250	..	0·1 N	0·0
24 ..	·784	82·5	·892	·222	..	0·6 S	2·9 W	61 ..	·867	82·2	·748	·359	..	1·9 N	0·5 E
25 ..	·744	82·9	·874	·255	..	1·2 N	4·1 W	62 ..	·800	82·7	·798	·324	..	2·4 N	0·3 W
26 ..	·718	83·7	.881	·277	0·03	2·0 N	4·0 W	63 ..	·895	82·3	·827	·280	0·09	2·3 N	0·9 E
27 ..	·666	83·9	·914	·249	0·19	1·3 N	1·5 W	64 ..	·856	82·6	·796	·326	..	1·4 N	0·2 W
28 ..	·666	85·5	·924	·302	0·01	0·5 S	4·4 W	65 ..	·837	80·8	·613	·447	..	3·8 N	1·2 E
29 ..	·640	84·6	·941	·250	0·81	3·4 S	1·8 W	66 ..	·848	79·0	·630	·370	..	3·0 N	0·8 E
30 ..	·685	80·7	·905	·145	9·78	5.0 S	1·7 W	67 ..	·895	79·2	·763	·239	..	1·2 N	0·8 W
31 ..	·726	82·5	·905	·207	1·67	3.6 S	5·9 W	68 ..	·940	77·7	·647	·309	..	4·0 N	0·0
32 ..	·774	83·1	·896	·239	0·84	2.0 S	7·4 W	69 ..	·928	75·6	·535	·358	..	4·7 N	0·7 E
33 ..	·721	83·8	·877	·284	0·00	0·6 S	4·3 W	70 ..	·934	73·7	·491	·346	..	7·5 N	1·7 W
34 ..	·649	81·7	·900	·184	5·66	5·6 S	0·2 E	71 ..	·958	73·4	·574	·255	..	5·4 N	1·3 W
35 ..	·669	81·6	·907	·175	2·73	2·8 S	4·8 W	72 ..	·960	73·9	·578	·263	..	3·8 N	0·8 W
36 ..	·697	83·6	·896	·257	0·10	0·5 S	5·8 W	73 ..	·953	76·1	·681	·225	..	1·4 N	0·2 E
37 ..	·652	82·2	·889	·213	2·27	1·4 S	7·5 W								

*Five-day sums, not means.

Barometric Pressure, 1919.

TABLE Ia.—*Daily and monthly means.*

Height of the Barometer above mean sea-level=37 feet.

1919. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	In.	In.	In.	In.	In.	In	In.	In.	In.	In.	In.	In.
1 ..	29·954	29·985	29·927	29·821	29·786	29·736	29·527	29·625	29·694	29·694	29·822	29·909
2 ..	·940	·952	·941	·861	·771	·778	·504	·617	·721	·636	·751	·904
3 ..	·943	·948	·946	·858	·785	·738	·620	·620	·742	·725	·749	·939
4 ..	·961	·978	·946	·840	·805	·693	·660	·678	·726	·825	·800	·932
5 ..	·982	30·008	·939	·846	·812	·678	·646	·734	·698	·837	·820	·907
6 ..	30·018	29·984	·939	·880	·824	·671	·645	·747	·738	·803	·809	·883
7 ..	·014	·952	·953	·864	·790	·644	·658	·716	·765	·837	·796	·889
8 ..	29·991	·935	·935	·836	·775	·657	·663	·705	·803	·866	·806	·884
9 ..	·951	·920	·918	·801	·790	·668	·635	·707	·859	·855	·795	·861
10 ..	·943	·940	·906	·791	·776	·646	·657	·736	·876	·865	·775	·875
11 ..	·947	·936	·907	·796	·723	·664	·702	·755	·915	·888	·757	·891
12 ..	·968	·948	·913	·789	·729	·672	·693	·774	·871	·886	·779	·882
13 ..	·955	·923	·915	·763	·768	·664	·731	·733	·817	·899	·791	·839
14 ..	·957	·936	·907	·759	·738	·580	·779	·775	·804	·873	·778	·823
15 ..	·981	·977	·903	·787	·740	·547	·763	·773	·808	·834	·766	·850
16 ..	·921	·990	·921	·772	·754	·604	·773	·753	·794	·836	·768	·877
17 ..	·874	30·001	·917	·759	·765	·639	·761	·748	·804	·830	·811	·921
18 ..	·923	29·952	·908	·761	·763	·621	·701	·728	·812	·833	·862	·964
19 ..	30·008	·911	·930	·779	·760	·609	·650	·739	·822	·841	·900	30·001
20 ..	29·948	·906	·930	·823	·785	·665	·628	·793	·820	·849	·913	29·988
21 ..	·881	·885	·938	·889	·823	·700	·611	·791	·806	·828	·917	·962
22 ..	·913	·847	·921	·876	·825	·727	·595	·765	·789	·824	·925	·969
23 ..	·940	·855	·923	·849	·818	·736	·615	·731	·756	·841	·954	·958
24 ..	·945	·872	·914	·849	·815	·710	·666	·650	·736	·871	·970	·942
25 ..	·934	·885	·891	·858	·815	·670	·662	·617	·764	·872	·884	·941
26 ..	·907	·878	·871	·850	·819	·638	·655	·626	·752	·845	·828	·944
27 ..	·918	·886	·842	·822	·767	·646	·613	·677	·734	·877	·894	·957
28 ..	·914	·914	·806	·801	·718	·658	·566	·711	·729	·879	·927	·968
29 ..	·920	..	·881	·755	·696	·682	·561	·729	·725	·864	·950	·954
30 ..	·988	..	·884	·789	·684	·626	·597	·689	·707	·882	·934	·914
31 ..	30·005	..	·848	..	·695	..	·608	·676	..	·877	..	·903
Monthly mean .	29·949	29·932	29·910	29·818	29·712	29·665	29·650	29·715	29·779	29·838	29·841	29·917
Annual Variation ..	+·138	+·121	+·099	+·007	−·099	−·146	−·161	−·096	−·032	+·027	+·030	+·106

Annual mean .. .. Inches 29·811

TABLE Ib.—*Mean diurnal inequality for each month of the year and for the whole year.*

Unity=0·001 inch.

1919. Bombay Civil Time.	January.	February.	March	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
0 7	+3	+5	+9	+7	+2	+8	+10	+9	+5	0	+3	+6	+6
1 7	−8	−7	−8	−7	−8	−10	−8	−8	−12	−13	−9	−5	−9
2 7	−20	−19	−21	−20	−19	−25	−23	−25	−22	−23	−22	−19	−21
3 7	−28	−24	−28	−26	−23	−26	−30	−32	−28	−27	−26	−28	−27
4 7	−26	−23	−26	−22	−19	−25	−32	−31	−25	−25	−23	−25	−25
5 7	−15	−12	−14	−8	−9	−15	−24	−24	−15	−10	−13	−15	−15
6 7	−1	+7	+6	+11	+8	−1	−9	−13	−2	+5	+5	+2	+1
7 7	+17	+29	+28	+35	+29	+14	+7	+6	+22	+29	+27	+24	+22
8 7	+41	+49	+50	+58	+46	+29	+20	+21	+40	+47	+47	+48	+41
9 7	+62	+65	+63	+65	+56	+35	+30	+33	+49	+57	+60	+62	+53
10 7	+62	+66	+65	+61	+52	+37	+31	+35	+49	+50	+54	+67	+52
11 7	+46	+46	+52	+50	+45	+30	+28	+33	+39	+33	+35	+38	+40
12 7	+17	+17	+25	+26	+28	+18	+19	+21	+16	+6	+6	+7	+17
13 7	−10	−13	−5	−5	+6	+3	+7	+4	−11	−18	−23	−22	−7
14 7	−36	−37	−32	−32	−20	−11	−8	−13	−37	−42	−43	−44	−30
15 7	−48	−52	−53	−50	−40	−26	−22	−25	−48	−50	−51	−53	−43
16 7	−49	−51	−58	−61	−53	−35	−32	−33	−49	−50	−50	−50	−48
17 7	−38	−43	−50	−58	−53	−33	−31	−26	−35	−36	−39	−40	−40
18 7	−26	−31	−38	−46	−39	−25	−21	−16	−20	−23	−22	−24	−28
19 7	−7	−14	−20	−27	−23	−9	−3	−2	−1	−2	+2	−2	−9
20 7	+11	+5	0	−7	−3	+9	+11	+11	+14	+17	+19	+15	+9
21 7	+23	+15	+16	+10	+9	+19	+24	+24	+28	+26	+27	+25	+21
22 7	+24	+18	+22	+21	+14	+28	+31	+29	+28	+23	+26	+26	+24
23 7	+14	+11	+18	+17	+10	+22	+26	+24	+21	+17	+15	+15	+17
Range ..	111	118	123	126	109	72	63	68	98	107	111	115	101

TABLE IIa.—*Daily and monthly means.*

1919. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	°	°	°	°	°	°	°	°	°	°	°	°
1 ..	75·0	71·9	**74·9**	81·0	82·7	86·3	**77·3**	80·2	79·8	**79·3**	81·6	78·0
2 ..	75·8	72·6	75·4	80·4	**81·4**	**86·6**	77·5	81·1	**78·9**	79·7	81·9	79·4
3 ..	76·0	73·1	75·0	81·0	81·4	86·4	80·6	80·9	80·2	81·8	82·2	79·7
4 ..	76·8	73·5	76·1	81·0	82·7	84·6	82·4	80·9	80·2	81·2	82·1	78·8
5 ..	76·5	73·0	76·2	**79·8**	83·0	86·3	82·6	80·4	81·2	81·1	**84·1**	77·9
6 ..	77·4	73·2	76·2	81·9	82·9	85·1	82·3	80·5	80·5	81·5	82·6	77·5
7 ..	**77·8**	74·1	76·0	81·1	83·2	80·7	81·0	80·3	81·3	81·8	81·4	76·9
8 ..	76·4	75·3	75·8	80·5	83·7	80·9	82·0	79·9	81·3	82·1	80·9	77·0
9 ..	74·4	76·2	76·2	80·0	83·9	80·6	82·2	80·7	80·9	80·9	80·3	76·9
10 ..	72·5	75·2	77·6	80·7	84·1	83·8	82·0	81·3	80·9	80·7	80·2	77·2
11 ..	72·7	74·4	77·9	81·0	83·6	84·9	82·4	**81·5**	80·8	80·8	81·0	76·5
12 ..	71·8	73·9	78·0	80·1	85·0	84·8	82·0	81·4	80·8	81·2	81·6	76·3
13 ..	**70·7**	73·3	77·3	79·9	85·2	84·0	82·9	81·0	80·8	82·1	80·4	77·0
14 ..	72·7	74·0	76·2	81·5	85·3	83·4	82·8	80·6	81·2	82·7	80·3	75·6
15 ..	73·7	74·3	76·0	80·4	85·0	84·4	82·2	80·0	81·2	83·0	81·8	73·7
16 ..	73·8	74·2	76·4	80·9	85·4	84·3	**83·2**	80·2	81·8	82·9	82·0	73·5
17 ..	74·4	72·2	76·3	81·8	84·8	83·8	83·2	80·1	79·3	**84·3**	81·4	76·6
18 ..	75·6	**70·0**	76·3	81·6	85·6	83·9	83·0	79·4	81·0	84·3	81·7	**80·6**
19 ..	73·3	72·2	77·2	80·8	86·0	84·5	81·6	79·4	82·1	84·1	81·2	79·5
20 ..	74·8	73·5	77·3	81·0	86·7	85·0	79·6	81·1	81·2	82·6	81·2	78·5
21 ..	**75·2**	75·6	77·5	82·0	**86·8**	84·7	81·0	80·7	**82·5**	81·5	80·6	77·4
22 ..	75·5	**76·9**	76·4	82·8	86·0	83·7	81·4	79·9	82·4	82·5	79·4	75·7
23 ..	74·8	75·8	76·5	81·9	85·9	84·0	81·3	79·3	81·7	83·3	78·3	74·2
24 ..	73·0	74·8	76·8	81·3	85·8	83·8	81·3	78·9	81·3	82·3	76·3	73·5
25 ..	72·2	74·6	78·6	81·3	85·9	80·5	80·8	**78·4**	79·6	82·2	**75·5**	72·6
26 ..	71·6	75·4	79·5	82·3	85·6	81·4	78·3	79·4	80·6	82·6	75·9	72·5
27 ..	73·3	75·1	80·3	**83·5**	85·9	81·6	79·3	80·1	80·6	81·7	77·9	72·0
28 ..	75·3	75·5	**81·8**	82·8	84·6	81·3	81·0	79·4	80·5	82·1	80·2	70·5
29 ..	76·0	..	81·5	82·8	85·7	81·2	80·6	80·1	79·2	82·6	80·7	**70·0**
30 ..	72·6	..	81·0	83·0	86·2	**79·3**	81·4	78·4	79·1	82·3	79·4	74·0
31 ..	71·3	..	80·4	..	86·4	..	81·8	80·7	..	81·6	..	75·3
Monthly mean	74·3	**74·1**	77·4	81·3	**84·7**	83·5	81·3	80·2	80·8	82·0	80·5	76·0
Annual Variation.	−5·4	−5·6	−2·3	+1·6	+5·0	+3·8	+1·6	+0·5	+1·1	+2·3	+0·8	−3·7

Annual mean .. .. 79·7

TABLE IIb.—*Mean diurnal inequality for each month of the year and for the whole year.*

1919. Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.	°	°	°	°	°	°	°	°	°	°	°	°	°
0 2	−2·2	−2·2	−2·0	−2·1	−2·0	−0·9	−1·1	−0·8	−1·4	−2·0	−2·0	−2·5	−1·8
1 2	−2·6	−2·6	−2·3	−2·5	−2·3	−1·0	−1·2	−0·9	−1·7	−2·4	−2·4	−2·9	−2·1
2 2	−2·8	−2·9	−2·8	−2·9	−2·6	−1·2	−1·4	−0·9	−2·0	−2·6	−2·7	−3·3	−2·3
3 2	−3·4	−3·3	−3·2	−3·3	−2·8	−1·5	−1·4	−1·1	−2·1	−2·8	−3·2	−3·7	−2·7
4 2	−3·6	−3·8	−3·5	−3·6	−3·0	−1·5	−1·2	−1·1	−2·0	−3·0	−3·5	−4·0	−2·8
5 2	−4·2	−4·4	−3·8	−3·8	−3·2	−1·7	−1·5	−1·2	−2·1	−3·4	−3·8	−4·4	−3·1
6 2	−4·5	−4·6	−4·1	−3·9	−3·1	−1·9	−1·5	−1·3	−2·1	−3·5	−4·0	−4·7	−3·3
7 2	−4·5	−4·9	−3·7	−2·7	−2·0	−1·3	−1·3	−1·1	−1·8	−3·1	−3·6	−4·8	−2·9
8 2	−3·2	−3·0	−1·6	−0·9	−0·7	−0·5	−0·8	−0·4	−1·0	−1·9	−2·5	−3·4	−1·7
9 2	−1·4	−0·9	0	+0·9	+0·6	0	−0·1	0	−0·2	−0·4	−0·9	−1·5	−0·3
10 2	+0·7	+1·0	+1·7	+2·4	+1·9	+0·8	+0·6	+0·7	+0·8	+1·3	+1·2	+1·0	+1·2
11 2	+2·9	+2·9	+2·8	+3·6	+2·9	+1·5	+1·3	+1·1	+1·7	+2·8	+3·0	+3·1	+2·5
12 2	+4·4	+4·1	+4·0	+4·7	+3·8	+2·1	+1·7	+1·6	+2·6	+4·1	+4·5	+5·0	+3·5
13 2	+5·2	+4·8	+4·5	+5·0	+4·3	+2·5	+2·2	+1·9	+3·0	+4·5	+4·9	+6·2	+4·1
14 2	+5·7	+5·2	+4·9	+4·9	+4·5	+2·6	+2·6	+1·9	+3·3	+4·6	+5·0	+6·4	+4·3
15 2	+5·5	+5·2	+4·5	+4·4	+4·1	+2·4	+2·5	+1·9	+3·2	+4·2	+4·6	+6·1	+4·1
16 2	+4·8	+4·5	+3·9	+3·5	+3·4	+1·9	+1·9	+1·2	+2·7	+3·5	+3·7	+5·0	+3·3
17 2	+3·1	+3·3	+2·6	+2·3	+2·2	+1·2	+1·3	+0·7	+1·2	+2·2	+2·1	+3·1	+2·1
18 2	+1·7	+1·7	+0·9	+0·6	+0·4	+0·3	+0·6	+0·2	+0·3	+1·2	+1·2	+1·6	+0·9
19 2	+0·9	+0·9	+0·1	−0·3	−0·6	−0·2	0	−0·3	−0·2	+0·4	+0·6	+0·9	+0·2
20 2	+0·3	+0·4	−0·2	−0·7	−0·9	−0·4	−0·3	−0·2	−0·6	+0·1	+0·2	+0·3	−0·2
21 2	−0·4	−0·1	−0·7	−1·2	−1·2	−0·8	−0·6	−0·7	−0·7	−0·6	−0·5	−0·5	−0·7
22 2	−1·1	−0·9	−1·1	−1·5	−1·4	−0·8	−0·7	−0·5	−0·8	−1·0	−1·0	−1·4	−1·0
23 2	−1·8	−1·4	−1·5	−1·8	−1·7	−1·0	−0·8	−0·7	−1·2	−1·6	−1·7	−2·2	−1·5
Range ..	10·2	10·1	9·0	8·9	7·7	4·5	4·1	3·2	5·4	8·1	9·0	11·2	7·6

TABLE IIc.—*Showing the maximum temperature of the air on each day during the year 1919.*

1919. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	°	°	°	°	°	°	°	°	°	°	°	°
1 ..	80·8	81·2	83·1	88·6	89·1	91·9	81·4	83·3	84·1	84·3	89·6	86·1
2 ..	85·0	82·7	82·8	87·8	88·8	**94·0**	82·1	85·5	82·3	81·9	90·2	88·0
3 ..	85·1	82·1	83·2	89·1	87·9	93·8	85·2	84·5	84·4	86·1	91·3	87·3
4 ..	85·3	81·1	83·5	89·7	90·2	91·0	86·6	84·9	84·3	86·3	88·1	88·1
5 ..	85·1	79·7	84·5	88·9	89·9	93·0	86·8	83·2	85·3	87·2	**91 4**	87·1
6 ..	86·1	81·1	83·9	90·2	90·4	90·2	86·9	84·1	86·0	87·0	90·9	86·1
7 ..	**86·7**	82·9	83·6	89·8	90·4	85·1	84·3	82·9	86·1	87·2	89·7	85·6
8 ..	83·4	84·6	83·9	89·3	90·3	84·9	86·9	83·1	86·1	88·1	88·7	85·1
9 ..	82·7	**85·1**	83·3	86·6	90·7	82·6	86·7	83·4	86·9	87·6	88·7	85·1
10 ..	81·5	82·9	84·3	87·9	90·7	87·6	87·1	**85·6**	87·3	87·3	88·9	84·8
11 ..	81·8	83·0	85·1	88·7	90·2	90·0	86·9	85·3	86·9	87·3	89·1	82·1
12 ..	80·9	81·9	85·8	87·1	91·3	90·8	86·3	85·0	87·1	88·9	90·8	79·9
13 ..	81·3	81·3	85·1	88·9	92·4	88·4	87·1	84·6	86·5	90·3	88·1	83·2
14 ..	83·1	82·0	84·1	90·4	92·6	85·7	87·3	84·1	86·7	90·3	88·4	83·9
15 ..	82·9	81·6	84·1	89·3	92·2	88·6	87·1	82·9	85·6	90·7	88·0	83·1
16 ..	82·2	82·4	84·3	89·6	92·3	89·1	87·6	84·9	87·3	88·7	87·9	82·9
17 ..	83·3	79·6	83·2	88·7	91·7	87·3	**87·9**	85·3	82·7	91·0	87·1	88·5
18. ..	83·1	79·6	84·1	88·8	91·6	87·5	87·5	84·6	**86·1**	91·6	88·0	**89·4**
19 ..	81·8	82·2	85·4	88·1	92·7	89·0	85·6	83·5	87·2	91·4	87·4	89·2
20 ..	85·9	83·6	85·0	88·3	92·7	90·4	81·9	85·5	87·2	89·5	86·9	88·0
21 ..	82·7	84·5	85·3	89·2	93·1	90·3	85·2	85·3	89·1	88·4	86·2	87·1
22 ..	82·0	85·1	84·1	89·9	92·2	89·2	85·1	84·3	**89·3**	88·4	86·1	84·1
23 ..	82·0	83·7	84·2	89·0	92·4	89·6	86·3	82·9	89·0	91·0	86·0	81·7
24 ..	80·9	83·0	85·0	88·4	92·7	89·1	86·3	83·9	88·9	90·0	85·1	81·3
25 ..	79·8	83·0	85·9	88·2	93·0	85·4	86·5	80·8	85·9	91·1	83·2	82·9
26 ..	81·4	83·9	87·3	89·9	93·2	86·2	81·5	84·1	88·5	91·0	84·1	83·0
27 ..	81·1	84·1	87·9	**91·5**	92·4	86·1	80·2	85·3	87·8	89·0	85·8	80·7
28 ..	82·1	84·1	**91·0**	89·9	91·2	86·5	83·7	84·9	85·5	89·8	87·8	80·7
29 ..	82·4	..	88·3	89·2	92·8	86·1	83·1	84·1	84·3	90·4	89·3	80·2
30 ..	80·3	..	88·1	89·2	93·0	83·1	85·3	81·3	81·9	**92·0**	86·3	84·4
31 ..	79·5	..	89·1	..	**93·4**	..	86·1	85·1	..	90·4	..	85·0
Monthly mean ..	82·7	82·6	85·1	89·0	**91·5**	88·4	85·4	84·1	86·2	88·8	88·0	84·7

Annual mean .. .. 86·4

The greatest maximum temperature recorded during the year (that of 2nd June was) .. .. .. **94·0**

TABLE IId.—*Showing the minimum temperature of the air on each day during the year 1919.*

1919. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	°	°	°	°	°	°	°	°	°	°	°	°
1 ..	70·4	66·0	71·1	77·2	78·4	84·0	75·5	78·2	77·6	77·2	76·9	72·3
2 ..	69·3	65·3	71·3	75·2	78·4	83·0	**75·4**	78·2	76·5	78·8	76·0	73·8
3 ..	69·8	67·9	71·0	77·5	**78·2**	83·0	75·5	78·2	**76·2**	77·5	76·9	74·8
4 ..	71·3	68·7	70·9	78·5	78·3	79·2	79·8	78·2	76·3	78·2	77·4	73·3
5 ..	69·5	68·5	**70·7**	**74·5**	79·0	83·5	79·8	77·6	78·5	78·0	80·9	71·9
6 ..	72·5	68·5	71·0	76·4	79·4	81·6	80·2	78·2	76·6	78·6	77·6	70·9
7 ..	72·5	68·7	72·7	77·4	79·2	77·9	77·8	78·0	78·2	78·4	75·9	72·3
8 ..	71·3	68·3	72·0	75·9	80·4	76·7	79·6	78·4	78·1	78·6	76·2	71·8
9 ..	70·4	71·2	72·9	76·4	80·4	76·4	78·8	77·4	77·2	76·8	74·4	71·3
10 ..	65·7	70·9	73·3	76·5	80·7	80·5	78·0	79·2	77·2	76·9	74·4	72·0
11 ..	66·5	67·5	75·3	76·0	79·6	82·2	79·2	79·2	77·4	77·0	76·4	71·3
12 ..	66·7	68·5	73·5	77·5	81·4	82·5	79·4	79·6	77·1	77·6	76·2	73·5
13 ..	**61·1**	69·1	71·3	75·9	81·9	82·8	80·4	79·5	76·9	77·4	76·5	74·4
14 ..	65·3	68·4	71·0	76·4	80·9	**81·2**	80·0	77·6	77·2	77·7	74·5	71·5
15 ..	66·1	70·9	71·0	75·8	80·4	83·0	79·5	77·4	79·1	77·4	78·6	66·5
16 ..	67·7	69·7	72·1	75·0	81·9	82·5	80·4	77·0	79·4	79·3	78·5	67·3
17 ..	68·8	70·5	71·8	76·6	80·4	79·0	80·5	78·0	77·0	80·6	78·3	69·5
18 ..	71·3	64·1	71·8	76·9	81·9	82·4	78·6	76·4	78·9	79·9	78·6	74·4
19 ..	67·8	**64·0**	71·7	77·4	82·2	82·6	80·0	77·0	78·7	78·2	78·0	75·2
20 ..	67·5	65·0	72·5	76·8	83·4	82·5	76·2	78·2	80·6	77·4	77·2	73·7
21 ..	70·5	69·0	72·8	78·5	83·5	81·2	77·8	77·5	78·6	76·4	78·0	72·6
22 ..	71·3	70·3	72·0	77·9	82·4	80·2	78·6	77·4	79·6	79·5	76·2	69·0
23 ..	70·7	69·5	72·3	76·9	82·2	80·8	78·0	77·2	79·0	75·2	79·0	70·1
24 ..	68·5	70·3	71·0	76·7	82·8	81·3	78·4	76·6	76·4	77·2	69·9	69·6
25 ..	68·5	69·7	74·8	76·9	83·0	77·5	77·5	76·8	77·6	**76·4**	**69·5**	65·5
26 ..	65·8	70·3	74·8	77·7	83·4	**75·6**	76·5	76·5	77·4	77·2	71·3	65·4
27 ..	68·5	68·9	76·0	78·4	83·5	79·9	76·1	78·5	78·2	78·6	72·3	67·1
28 ..	70·0	70·3	76·5	77·9	83·4	78·6	79·2	77·0	76·6	77·9	74·8	64·3
29 ..	73·3	..	78·8	77·9	82·8	80·0	77·5	76·6	77·4	77·9	76·4	**61·7**
30 ..	68·9	..	76·4	79·0	82·6	77·4	77·6	**75·8**	77·2	77·2	75·2	68·3
31 ..	66·5	..	76·5	..	82·8	..	79·5	77·2	..	76·4	..	69·3
Monthly mean ..	68·8	**68·6**	72·9	76·9	**81·3**	80·6	78·4	77·7	74·4	77·9	75·9	70·5

Annual mean .. .. 75·3

The least minimum temperature recorded during the year (that of 13th January was) .. .. .. **61·1**

TABLE IIIa.—*Daily and monthly means.*

1919. Date	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
1 ..	0·674	0·457	0·652	0·755	0·851	0·956	0·874	0·917	0·860	0·892	0·802	0·674
2 ..	·630	·512	·624	·770	·886	·962	·863	·910	·850	·928	·803	·667
3 ..	·654	·601	·692	·754	·860	·943	·933	·907	·868	·939	·825	·638
4 ..	·674	·628	·698	·735	·872	·941	·959	·900	·876	·843	·841	·627
5 ..	·699	·633	·733	·796	·876	·950	·942	·886	·883	·863	·854	·636
6 ..	·721	·612	·725	·801	·863	·963	·929	·875	·854	·901	·819	·656
7 ..	·674	·591	·701	·827	·873	·922	·918	·871	·853	·902	·767	·664
8 ..	·557	·639	·692	·745	·889	·930	·943	·876	·862	·868	·748	·697
9 ..	·495	·703	·745	·750	·907	·933	·929	·881	·862	·810	·719	·705
10 ..	·501	·671	·757	·792	·929	·965	·930	·878	·848	·812	·745	·704
11 ..	·496	·667	·762	·783	·892	·962	·933	·884	·838	·828	·785	·713
12 ..	·435	·682	·680	·806	·938	·945	·898	·879	·831	·893	·758	·697
13 ..	·463	·660	·642	·794	·957	·954	·923	·870	·791	·853	·590	·667
14 ..	·574	·673	·665	·815	·949	·966	·909	·873	·840	·790	·709	·531
15 ..	·627	·669	·662	·773	·937	·974	·909	·873	·879	·803	·849	·472
16 ..	·616	·672	·692	·785	·907	·954	·915	·888	·920	·919	·897	·586
17 ..	·654	·534	·674	·831	·883	·946	·920	·897	·897	·915	·867	·664
18 ..	·685	·452	·682	·811	·864	·952	·911	·876	·948	·849	·854	·658
19 ..	·570	·506	·705	·811	·878	·962	·915	·886	·956	·780	·807	·646
20 ..	·593	·557	·717	·857	·925	·946	·901	·893	·918	·826	·830	·656
21 ..	·692	·564	·714	·879	·925	·922	·907	·883	·937	·843	·810	·598
22 ..	·673	·596	·650	·846	·876	·913	·939	·869	·935	·900	·710	·574
23 ..	·625	·649	·660	·829	·847	·910	·923	·869	·938	·842	·609	·613
24 ..	·513	·681	·740	·787	·833	·909	·908	·874	·944	·820	·602	·620
25 ..	·465	·631	·782	·832	·895	·899	·916	·881	·907	·768	·585	·486
26 ..	·522	·667	·758	·894	·925	·896	·899	·880	·907	·782	·679	·505
27 ..	·630	·673	·780	·847	·948	·911	·900	·885	·907	·878	·772	·569
28 ..	·663	·641	·773	·841	·931	·905	·902	·895	·872	·820	·776	·447
29 ..	·622	..	·909	·875	·934	·915	·930	·885	·897	·774	·752	·465
30 ..	·549	..	·874	·921	·922	·909	·927	·862	·879	·768	·727	·589
31 ..	·530	..	·776	..	·932	..	·923	·873	..	·798	..	·626
Monthly mean.	0·596	0·615	0·720	0·811	0·901	0·937	0·917	0·883	0·885	0·845	0·763	0·615
Annual Variation	−·195	−·176	−·071	+·020	+110	+·146	+·126	+·092	+·094	+·054	−·028	−·176

Annual mean .. .. In. 0·79

TABLE IIIb.—*Mean diurnal inequality for each month of the year and for the whole year.*

Unity =0·001 inch.

1919. Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H M													
0 2	−17	+3	−3	−9	+2	−3	−16	−7	−16	−10	−5	−1	−7
1 2	−3	+9	−7	−16	−6	−7	−15	−6	**−20**	−12	−6	−7	−8
2 2	−1	+5	−9	−18	−9	−14	−21	−15	−18	−15	−8	−14	−11
3 2	−4	−3	−13	−21	−18	−22	−18	−13	−16	−11	−14	−27	−15
4 2	−12	−8	−14	−26	**−23**	−21	−16	−10	−13	−11	−26	−27	−17
5 2	−21	−17	**−16**	**−33**	−21	**−25**	**−23**	−15	−14	−19	**−34**	−33	−23
6 2	**−31**	−27	−16	−31	−14	−25	−19	**−18**	−10	**−20**	−27	−41	−23
7 2	−29	**−42**	−10	−20	−8	−17	−14	−11	+1	−19	−9	**−44**	−19
8 2	−18	−22	0	−14	−8	−6	−9	+2	+10	−9	−5	−35	−9
9 2	−15	−19	+8	−4	−2	−1	+1	+4	+18	+1	−1	−30	−3
10 2	−6	−8	+14	+7	+2	+9	+13	+19	+29	+14	+6	−15	+7
11 2	−11	−22	+14	+20	−1	+10	+24	+23	+28	+1	−10	−23	+4
12 2	−19	−2	+21	+31	+4	+21	+28	+23	+30	−16	−9	−17	+8
13 2	−14	+9	**+22**	+35	+7	+25	**+35**	+24	**+32**	+4	−2	−23	+13
14 2	+22	**+22**	+21	**+38**	+10	**+27**	+34	**+32**	+31	+11	+17	−3	**+22**
15 2	+37	+21	+12	+21	+13	+24	+28	+23	+18	+18	+21	+21	+21
16 2	**+39**	+15	+6	+26	**+18**	+23	+22	+9	+15	+21	+24	+39	+21
17 2	+30	+12	−1	+15	+9	+12	+7	+2	−7	**+23**	**+26**	+48	+15
18 2	+29	+15	−10	+4	+4	+5	+1	−8	−16	+16	+22	+53	+10
19 2	+25	+13	−11	+1	+3	−4	−6	−15	−16	+16	+19	**+55**	+7
20 2	+20	+19	−11	+8	+5	−2	−7	−8	−19	+19	+18	+52	+8
21 2	+12	+12	−6	0	+5	−4	−8	−13	−17	+12	+15	+37	+4
22 2	+4	+9	+3	0	+7	+1	−8	−11	−6	+6	+4	+20	+2
23 2	−19	+7	+2	−5	+1	−2	−13	−10	−14	−13	−15	+4	−6
Range	70	64	38	71	41	52	58	50	52	43	60	99	45

TABLE IV*a*.—*Daily and monthly means.*

1919. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
1 ..	0·195	0·330	0·214	0·307	0·271	0·299	0·064	0·113	0·158	0·110	0·283	0·290
2 ..	·270	·296	·257	·270	·188	·308	·081	·160	·139	·084	·291	·345
3 ..	·252	·218	·179	·306	·213	·318	·113	·149	·163	·149	·280	·383
4 ..	·253	·188	·206	·326	·249	·251	·150	·157	·155	·222	·257	·365
5 ..	·220	·181	·178	·225	·257	·306	·173	·151	·181	·200	·318	·327
6 ..	·222	·208	·185	·296	·266	·247	·176	·165	·190	·177	·300	·292
7 ..	·280	·254	·200	·238	·268	·126	·140	·162	·212	·185	·312	·268
8 ..	·353	·245	·202	·300	·269	·127	·151	·144	·208	·229	·311	·236
9 ..	·360	·205	·162	·276	·258	·113	·174	·165	·195	·247	·320	·224
10 ..	·302	·204	·191	·260	·243	·195	·164	·191	·209	·237	·292	·234
11 ..	·311	·188	·197	·280	·264	·238	·175	·192	·214	·225	·278	·202
12 ..	·348	·159	·281	·224	·270	·252	·194	·193	·223	·175	·326	·210
13 ..	·297	·165	·297	·231	·256	·211	·205	·189	·262	·248	452	·263
14 ..	·241	·173	·242	·265	·271	·176	·213	·171	·228	·331	·332	·358
15 ..	·212	·181	·239	·268	·271	·207	·193	·151	·186	·333	·239	·365
16 ..	·223	·177	·220	·275	·315	·226	·225	·143	·167	·210	·196	·246
17 ..	·204	·258	·236	·260	·318	·213	·217	·132	·104	·264	·207	·265
18 ..	·204	·287	·226	·272	·365	·212	·219	·128	·112	·334	·229	·396
19 ..	·253	·293	·236	·245	·370	·223	·164	·117	·143	·395	·262	·367
20 ..	·281	·275	·226	·205	·350	·259	·111	·168	·147	·291	·237	·323
21 ..	·185	·329	·232	·219	·353	·272	·151	·167	·177	·234	·236	·350
22 ..	·211	·334	·265	·280	·370	·242	·133	·152	·177	·214	·295	·320
23 ..	·239	·245	·256	·264	·397	·259	·149	·132	·147	·302	·363	·235
24 ..	·302	·187	·189	·286	·405	·252	·162	·113	·127	·290	·309	·209
25 ..	·327	·230	·200	·240	·347	·143	·137	·090	·105	·339	·302	·320
26 ..	·258	·217	·253	·212	·304	·176	·068	·124	·142	·337	·220	·305
27 ..	·196	·203	·259	·308	·293	·167	·102	·143	·140	·208	·187	·221
28 ..	·218	·247	·315	·285	·259	·162	·158	·109	·170	·283	·259	·305
29 ..	·278		·169	·250	·300	·151	·115	·144	·100	·345	·303	·277
30 ..	·254		·187	·211	·333	·095	·151	·109	·115	·347	·282	·260
31 ..	·239		·265		·330		·163	·175		·288		·260
Monthly mean. ..	0·258	0·231	0·225	0·263	0·298	0·214	0·155	0·148	0·167	0·253	0·283	0·291
Annual Variation	+·026	−·001	−·007	+·031	+·066	−·018	−·077	−·084	−·165	+·021	+·051	+·059

Annual mean. .. .. In. 0·232

TABLE IV*b*.—*Mean diurnal inequality for each month of the year and for the whole year.*

Unity = 0·001 inch.

1919. Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
0 2	−47	−66	−60	−68	−82	−31	−23	−21	−30	−65	−65	−78	−53
1 2	−72	−83	−66	−74	−85	−33	−30	−24	−36	−76	−78	−82	−62
2 2	−80	−87	−79	−85	−93	−32	−31	−15	−50	−80	−85	−86	−67
3 2	−91	−89	−85	−95	−92	−36	−31	−24	−55	−90	−93	−83	−72
4 2	−89	−95	−93	−99	−93	−36	−28	−27	−53	−95	−90	−92	−74
5 2	−96	−101	−99	−99	−102	−40	−30	−28	−56	−100	−91	−95	−78
6 2	−94	−98	−107	−103	−104	−45	−36	−25	−62	−104	−103	−96	−81
7 2	−94	−90	−102	−76	−73	−34	−34	−25	−62	−92	−111	−95	−74
8 2	−74	−62	−53	−23	−25	−16	−21	−16	−46	−61	−80	−66	−45
9 2	−29	−9	−10	+28	+21	0	−8	−4	−25	−19	−32	−19	−9
10 2	+21	+33	+36	+75	+67	+22	+6	+5	0	+28	+31	+38	+30
11 2	+92	+105	+73	+105	+110	+47	+19	+14	+32	+99	+111	+114	+77
12 2	+147	+121	+106	+137	+142	+61	+34	+33	+62	+167	+167	+173	+113
13 2	+169	+131	+123	+145	+160	+72	+41	+42	+76	+162	+179	+221	+127
14 2	+148	+134	+140	+141	+167	+74	+58	+34	+87	+161	+161	+210	+126
15 2	+129	+135	+135	+135	+148	+68	+60	+42	+96	+138	+141	+174	+117
16 2	+102	+119	+117	+96	+112	+48	+46	+32	+80	+106	+106	+115	+90
17 2	+58	+83	+81	+61	+71	+31	+38	+20	+52	+52	+45	+42	+53
18 2	+14	+31	+34	+11	+7	+6	+16	+13	+27	+22	+13	−9	+20
19 2	−5	+10	+9	−15	−31	−6	+4	+5	+8	−5	−2	−36	−05
20 2	−16	−9	+1	−39	−44	−14	−7	+1	−1	−21	−15	−50	−18
21 2	−27	−18	−18	−47	−57	−28	−17	−10	−6	−37	−35	−59	−30
22 2	−39	−37	−40	−56	−66	−33	−21	−8	−20	−47	−42	−67	−40
23 2	−35	−49	−51	−61	−70	−36	−18	−14	−28	−49	−44	−75	−44
Range	265	236	247	248	271	119	96	70	158	271	290	317	208

Rainfall, 1919.

TABLE Va.—*Total fall of rain (in inches) as measured by F. Chambers' self-registering gauge, the funnel of which is 28 feet above the ground.*

1919. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	In.					In.	In.	In.	In.	In.	In.	
1	..	..	..	..	..	..	5·62	0·38	0·52	0·44	..	..
2	..	..	..	..	..	..	1·33	0·02	0·16	0·62	..	..
3	..	..	..	..	..	..	0·69	0·29	0·29	..	0·01	..
4	..	..	..	..	..	0·41	0·48	0·42	0·15	..	0·16	..
5	..	..	..	..	..	..	0·04	0·20	0·04	..	..	..
6	..	..	..	..	..	0·22	0·10	0·17	0·25	..	..	..
7	..	..	..	..	..	8·24	0·99	0·12	..	..	..	..
8	..	..	..	..	..	2·47	0·05	0·23	..	..	..	..
9	..	..	..	..	..	2·33	0·25	0·06	0·03	..	..	..
10	..	..	..	..	..	0·15	0·43	..	..	..	..	..
11	..	..	..	..	..	..	0·32	0·02	..	..	..	..
12	..	..	..	..	..	..	0·09	0·08	..	..	..	..
13	..	..	..	..	..	0·05	0·01	0·02	..	..	..	..
14	..	..	..	..	..	0·07	0·07	0·18	..	..	..	..
15	..	..	..	..	..	0·01	0·08	0·40	0·13	..	..	..
16	..	..	..	..	..	0·10	..	0·70	0·15	..	..	..
17	..	..	..	..	..	..	0·04	0·45	0·71	..	..	..
18	..	..	..	..	..	0·01	0·13	0·63	0·17	..	..	..
19	..	..	..	..	..	..	1·13	0·60	..	..	..	..
20	..	..	..	..	..	..	2·22	0·13	..	..	..	..
21	..	..	..	..	..	..	0·38	0·10	..	..	..	..
22	..	..	..	..	..	0·07	0·15	0·36	0·15	..	..	..
23	..	..	..	..	..	0·04	0·02	0·49	..	..	..	..
24	..	..	..	..	..	0·01	0·13	0·52	0·70	..	..	..
25	..	..	..	..	..	0·54	1·47	1·48	0·94	..	..	..
26	..	..	..	..	..	0·50	3·82	0·19	0·80	0·05	..	..
27	..	..	..	..	..	0·08	2·37	0·09	1·80	0·09	..	..
28	0·09	..	..	..	..	0·01	1·20	0·65	0·41	..	..	..
29	..	..	..	..	..	0·35	0·08	0·39	0·26	..	..	..
30	..	..	..	..	..	6·88	0·10	0·95	0·14	..	..	..
31	..	..	..	..	..	..	0·26	0·01	..	..	..	..
Monthly total ..	0·09	..	..	..	..	22·54	24·05	10·33	7·80	1·20	0·17	..
Number of rainy days ..	1	..	..	..	..	20	30	30	19	4	2	..

Total fall of rain in the year .. .. 66·18 inches
Total number of rainy days in the year 106
The greatest daily fall of rain in the year (that of 7th June) was .. .. 8·24 inches
No rain fell in the months of February, March, April, May and December nor on any of the days left blank in the above table.

TABLE Vb.—*Total fall of rain (in inches) as measured by Newman's gauge, placed 4½ feet above the ground.*

1919. Date	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	In.					In.	In.	In.	In.	In.	In.	
1	..	..	..	..	..	..	5·68	0·37	0·55	0·50	..	..
2	..	..	..	..	..	..	1·35	0·03	0·16	0·72	..	..
3	..	..	..	..	..	..	0·67	0·32	0·29	..	0·01	..
4	..	..	..	..	..	0·41	0·48	0·42	0·15	..	0·17	..
5	..	..	..	..	..	..	0·05	0·21	0·04	..	..	..
6	..	..	..	..	..	0·22	0·10	0·17	0·26	..	..	..
7	..	..	..	..	..	8·74	1·02	0·13	..	..	..	..
8	..	..	..	..	..	2·45	0·06	0·23	..	..	..	..
9	..	..	..	..	..	2·39	0·25	0·06	0·04	..	..	..
10	..	..	..	..	..	0·15	0·43	..	..	..	..	..
11	..	..	..	..	..	..	0·32	0·02	..	..	..	..
12	..	..	..	..	..	..	0·09	0·89	..	..	..	..
13	..	..	..	..	..	0·06	0·01	0·02	..	..	..	..
14	..	..	..	..	..	0·07	0·07	0·02	..	..	..	..
15	..	..	..	..	..	0·01	0·08	0·40	0·15	..	..	..
16	..	..	..	..	..	0·11	..	0·71	0·16	..	..	..
17	..	..	..	..	..	..	0·04	0·46	0·72	..	..	..
18	..	..	..	..	..	0·01	0·13	0·63	0·17	..	..	..
19	..	..	..	..	..	..	1·14	0·62	..	..	..	..
20	..	..	..	..	..	..	2·25	0·15	..	..	..	..
21	..	..	..	..	..	..	0·38	0·10	..	..	..	..
22	..	..	..	..	..	0·08	0·15	0·37	0·17	..	..	..
23	..	..	..	..	..	0·04	0·03	0·50	..	..	..	..
24	..	..	..	..	..	0·01	0·14	0·54	0·70	..	..	..
25	..	..	..	..	..	0·52	1·48	1·53	0·96	..	..	..
26	..	..	..	..	..	0·51	3·94	0·20	0·81	0·07	..	..
27	..	..	..	..	..	0·08	2·42	0·10	1·98	0·11	..	..
28	0·11	..	..	..	..	0·01	1·26	0·65	0·42	..	..	..
29	..	..	..	..	..	0·35	0·09	0·40	0·27	..	..	..
30	..	..	..	..	..	7·13	0·11	0·99	0·16	..	..	..
31	..	..	..	..	..	..	0·27	0·01	..	..	..	..
Monthly total ..	0·11	..	..	..	..	23·35	24·49	10·63	8·16	1·40	0·18	..
Number of rainy days ..	1	..	..	..	..	20	30	30	19	4	2	..

Total fall of rain in the year .. .. 68·32 inches
Total number of rainy days in the year 106
The greatest daily fall in the year (that of 7th June) was .. .. 8·74 inches
No rain fell in the months of February, March, April, May and December nor on any of the days left blank in the above table.

Velocity of Wind, 1919.

Robinson-Beckley's Anemograph.

TABLE VIa.—*Mean velocity of the wind in miles per hour, without regard to the direction from which it blew for each day of Bombay Civil Time; also the mean monthly velocity and its variation from the mean of the year.*

1919. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1 ..	6·4	9·3	4·7	6·1	7·5	9·5	8·7	11·7	10·4	18·0	4·4	5·9
2 ..	4·9	7·7	5·6	7·6	7·8	5·9	13·5	12·6	8·7	12·7	4·2	6·8
3 ..	3·7	6·0	6·2	8·9	7·3	7·8	7·8	11·6	9·2	8·2	5·0	7·6
4 ..	4·7	5·2	4·7	8·4	4·0	9·2	8·8	9·6	9·3	4·7	8·5	7·3
5 ..	4·4	5·8	4·4	6·5	6·4	10·8	7·9	9·3	9·0	6·8	7·1	6·0
6 ..	4·6	7·1	4·6	7·0	6·5	11·1	9·7	9·7	7·7	4·9	4·3	5·4
7 ..	5·2	7·1	7·2	4·8	5·9	12·8	9·2	11·7	5·9	3·7	5·5	3·4
8 ..	7·2	6·5	8·7	5·7	5·7	12·7	7·6	12·6	4·2	4·7	5·4	4·8
9 ..	6·7	4·2	8·2	7·4	4·5	10·0	9·4	10·3	4·9	5·9	4·8	4·6
10 ..	7·1	5·9	8·7	7·5	4·7	11·5	6·6	9·5	5·5	6·1	5·1	4·5
11 ..	7·0	4·7	8·5	8·0	4·9	10·6	5·2	9·5	4·5	6·7	4·6	3·1
12 ..	8·1	4·8	8·3	8·7	4·2	10·9	5·5	9·5	5·0	6·4	6·4	3·4
13 ..	5·6	5·5	8·9	8·3	4·8	10·5	4·4	9·2	4·3	5·8	8·0	6·0
14 ..	3·9	4·6	6·5	9·7	4·8	10·0	7·3	10·0	3·8	6·0	6·2	8·7
15 ..	4·7	7·0	7·4	8·8	4·5	8·9	9·1	9·4	3·4	4·4	5·0	6·8
16 ..	3·9	6·2	6·3	7·7	4·8	10·1	7·9	8·5	4·7	3·3	4·4	6·1
17 ..	3·9	7·9	5·2	5·4	3·0	7·5	7·6	6·1	4·0	4·5	4·5	6·7
18 ..	4·0	7·2	8·1	6·0	3·6	7·8	6·6	4·8	3·9	4·9	4·7	9·6
19 ..	6·7	5·8	6·3	5·5	3·5	7·7	6·2	6·1	3·2	4·6	4·2	7·0
20 ..	5·1	5·3	5·3	6·7	4·5	7·7	6·9	7·2	2·7	6·5	6·2	6·6
21 ..	3·9	8·6	4·5	7·3	5·5	7·0	5·7	9·3	4·7	5·5	5·2	7·6
22 ..	3·7	9·0	5·0	6·5	5·9	6·0	5·2	12·1	7·2	3·2	6·1	4·2
23 ..	5·2	7·1	6·3	5·3	5·8	5·0	7·7	15·6	5·5	4·8	8·0	4·6
24 ..	6·8	5·2	5·3	5·1	7·9	4·4	5·7	15·7	5·7	5·6	8·0	5·5
25 ..	6·5	5·6	5·3	7·0	3·6	6·2	9·2	11·6	4·5	5·7	7·4	8·0
26 ..	5·0	5·4	7·5	7·9	7·6	6·8	14·3	7·0	5·0	5·8	4·8	5·7
27 ..	4·5	4·6	9·4	6·7	7·2	5·7	15·4	4·8	5·0	7·2	5·2	6·0
28 ..	6·8	4·9	6·6	6·0	4·9	4·4	14·9	5·9	6·0	6·0	4·5	8·0
29 ..	6·7		6·5	5·4	5·1	8·3	13·8	11·2	4·7	7·0	5·5	6·2
30 ..	6·2		5·5	5·0	4·0	13·8	10·9	15·1	10·9	6·2	6·7	6·8
31 ..	8·3		7·0		7·2		12·0	12·0		4·3		7·2
Monthly mean ..	5·5	6·2	6·6	6·9	5·6	8·7	8·7	10·0	5·8	6·1	5·7	6·1
Annual Variation	−1·3	−0·6	−0·2	+0·1	−1·2	+1·9	+1·9	+3·2	−1·0	−0·7	−1·1	−0·7

	Miles.
The mean velocity for June to August	9·1
The mean velocity for September to May	6·1
The mean velocity for the year	6·8

TABLE VIb.—*Showing the mean diurnal inequality of the velocity of the wind in miles per hour for each month of the year 1919, and for the whole year.*

1919. Bombay Civil Time Hourly Intervals.	January.	February.	March.	April	May.	June.	July.	August.	September.	October.	November	December.	Year.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
0 to 1	−1·9	−1·7	−1·7	−0·7	−1·4	0·0	−0·7	−0·3	−1·1	−0·8	−0·7	−1·9	−1·1
1 „ 2	−1·6	−1·5	−2·0	−1·6	−1·7	+0·6	−0·9	−0·6	−1·8	−1·0	−0·8	−1·9	−1·2
2 „ 3	−1·4	−1·2	−2·0	−2·2	−2·1	+0·6	−0·9	−0·5	−1·3	−0·9	−1·2	−1·3	−1·2
3 „ 4	−1·1	−1·5	−2·6	−2·7	−2·4	+0·5	−0·3	−0·1	−1·2	−0·8	−0·8	−0·8	−1·1
4 „ 5	−1·0	−1·7	−2·5	−2·6	−2·3	0·0	+0·5	−0·1	−0·8	0·0	−0·5	−0·3	−0·9
5 „ 6	−1·2	−1·8	−2·5	−3·0	−2·4	+0·3	+0·3	+0·2	−0·5	−0·7	−0·1	0·0	−0·9
6 „ 7	−0·6	−2·1	−2·5	−3·5	−2·1	+0·1	+1·2	0·0	−0·4	−0·5	+0·1	+0·6	−0·8
7 „ 8	−0·5	−2·4	−2·5	−3·0	−2·1	−0·2	+1·4	0·0	−0·4	−0·6	+0·6	+1·2	−0·7
8 „ 9	−0·2	−1·7	−1·8	−2·9	−1·6	−0·6	+1·2	−0·6	−0·5	−0·6	+0·4	+1·0	−0·7
9 „ 10	−0·2	−1·6	−1·7	−2·2	−1·0	+0·6	+1·3	−0·4	−1·0	−0·5	−0·6	+0·6	−0·6
10 „ 11	−0·8	−1·3	−1·2	−0·8	+0·2	+0·2	0·0	0·0	+0·3	+0·8	−1·4	−1·9	−0·4	−0·5
11 „ 12	−1·6	−0·1	+0·2	+0·9	+0·9	+0·4	+0·1	+0·2	−0·3	−1·3	−2·0	−1·9	−0·4
12 „ 13	−0·5	+1·6	+2·0	+2·4	+2·0	+0·1	+0·7	+0·5	+0·5	−0·2	−0·7	−1·4	+0·6
13 „ 14	+0·9	+2·5	+3·1	+3·6	+2·7	+0·1	−0·1	+0·1	+1·1	+0·9	+0·3	−0·5	+1·2
14 „ 15	+2·5	+3·1	+3·9	+4·3	+3·4	0·0	+0·3	+0·2	+1·5	+1·7	+1·5	+0·4	+1·9
15 „ 16	+2·8	+3·5	+4·4	+4·3	+3·5	+0·1	+0·2	+0·6	+1·9	+2·2	+1·9	+1·2	+2·2
16 „ 17	+3·0	+3·4	+4·3	+4·2	+3·2	−0·1	+0·3	+0·8	+2·4	+2·2	+1·9	+2·1	+2·3
17 „ 18	+3·0	+3·0	+3·6	+3·8	+2·7	+0·1	−0·1	+0·5	+1·4	+2·0	+1·9	+2·6	+2·0
18 „ 19	+2·4	+2·7	+2·3	+2·5	+1·5	−0·4	+0·3	+0·2	+0·6	+2·0	+1·9	+2·9	+1·6
19 „ 20	+1·9	+1·8	+1·4	+1·1	+0·6	−0·6	−0·4	−0·3	+1·3	+1·5	+1·4	+2·2	+1·0
20 „ 21	+0·5	+0·8	−0·1	0·0	−0·1	0·0	−0·8	+0·1	+0·5	+0·6	+0·3	+1·2	+0·2
21 „ 22	−0·7	−0·5	−1·1	−0·7	−0·6	−0·7	−1·0	−0·4	−0·2	−0·5	−0·9	−0·7	−0·7
22 „ 23	−1·2	−1·4	−1·1	−0·9	−0·9	−0·9	−1·0	−0·5	−0·7	−1·0	−1·4	−1·8	−1·1
23 „ 24	−1·5	−1·5	−1·3	−0·8	−0·7	−0·4	−0·7	−0·2	−0·7	−1·3	−1·1	−2·2	−1·0
Range	4·9	5·9	7·0	7·8	5·9	1·5	2·4	1·4	4·2	3·6	3·9	5·1	3·5

Mean Daily Velocities of the North and East Components of the Wind, 1919.

TABLE VIc.—*Showing the Mean Velocities of the North or South and East or West Components of the Winds which blew on each day of the year, 1919.*

In miles per hour.

1919.	Month.																											
	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
Date.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.
1 ..	5·6 N	1·4 W	8·2 N	3·0 W	1·8 N	2·1 W	4·3 N	2·5 W	4·0 N	5·9 W	8·8 S	1·4 E	0·9 S	7·0 W	0·3 N	11·7 W	1·4 S	10·0 W	15·3 S	8·7 E	2·8 N	0·6 E	4·5 N	0·1 W
2 ..	3·9 N	0·0	6·4 N	2·4 W	0·9 N	2·2 W	4·3 N	4·4 W	5·0 N	5·7 W	3·8 S	2·5 W	2·3 S	11·7 W	0·2 S	12·5 W	2·4 S	8·1 W	6·6 S	3·9 W	1·9 N	0·1 E	3·6 N	2·3 E
3 ..	1·3 N	0·7 E	4·0 N	1·9 W	4·0 N	2·6 W	7·1 N	4·8 W	4·2 N	5·5 W	3·1 N	7·1 W	2·9 S	5·3 W	4·3 S	10·8 W	1·9 S	8·8 W	0·9 N	8·1 W	2·5 N	2·8 E	3·2 N	3·3 E
4 ..	0·2 N	1·1 E	3·8 N	2·8 W	2·9 N	3·2 W	6·3 N	4·4 W	0·7 N	3·8 W	2·9 N	7·7 W	3·4 S	8·1 W	4·2 S	8·5 W	1·6 S	9·0 W	0·2 N	4·4 W	3·0 N	2·7 E	3·3 N	2·8 E
5 ..	2·5 N	0·2 E	4·3 N	2·8 W	1·1 N	3·7 W	4·1 N	4·1 W	2·0 N	5·7 W	4·7 N	9·4 W	3·5 S	7·0 W	4·3 S	8·1 W	2·2 S	8·5 W	3·0 N	4·0 W	0·6 N	2·1 E	3·4 N	2·5 E
6 ..	2·7 N	0·5 W	5·7 N	3·5 W	2·1 N	3·2 W	2·6 N	3·5 W	2·7 N	5·2 W	4·9 N	9·7 W	4·3 S	8·5 W	4·1 S	8·7 W	2·5 S	7·1 W	1·0 N	1·5 W	2·4 N	0·1 E	2·1 N	1·4 E
7 ..	4·0 N	2·0 W	5·8 N	2·9 W	4·7 N	4·3 W	0·9 N	3·6 W	1·0 N	5·4 W	5·1 N	9·5 W	4·4 S	7·8 W	2·8 S	11·1 W	2·4 S	5·3 W	0·1 N	1·2 W	2·6 N	0·1 W	0·6 N	1·0 E
8 ..	6·2 N	2·9 W	4·6 N	2·4 W	6·4 N	4·0 W	2·7 N	4·1 W	0·6 N	5·5 W	2·8 N	11·3 W	3·4 S	6·5 W	2·2 S	12·1 W	0·2 S	4·1 W	2·8 N	2·4 W	2·8 N	0·1 W	2·0 N	1·0 E
9 ..	5·9 N	2·3 W	2·2 N	2·0 W	6·5 N	3·9 W	3·4 N	6·1 W	0·2 N	4·4 W	0·6 N	9·4 W	1·9 S	8·9 W	3·1 S	9·7 W	0·5 N	1·8 W	4·0 N	2·4 W	2·8 N	0·6 W	1·2 N	0·9 E
10 ..	5·8 N	2·4 W	4·1 N	3·8 W	7·3 N	3·6 W	3·9 N	5·6 W	0·6 N	4·5 W	0·1 N	11·5 W	2·9 S	5·7 W	3·1 S	8·9 W	2·0 N	1·5 W	3·0 N	1·9 W	2·9 N	0·1 W	0·4 S	0·9 E
11 ..	5·4 N	1·6 W	2·4 N	3·2 W	6·5 N	4·9 W	3·7 N	5·6 W	0·9 N	4·5 W	2·3 S	10·2 W	2·5 S	4·2 W	2·2 S	9·1 W	2·1 N	1·9 W	5·0 N	2·4 W	1·7 N	0·4 W	0·3 N	0·9 E
12 ..	6·7 N	1·2 W	0·4 S	1·2 W	6·2 N	5·4 W	4·8 N	6·7 W	0·3 S	3·8 W	3·6 S	10·2 W	1·9 S	5·0 W	2·0 S	9·1 W	1·7 N	1·8 W	4·8 N	2·4 W	3·8 N	1·0 E	0·7 N	1·7 E
13 ..	3·9 N	0·8 W	2·7 N	2·0 W	7·2 N	4·6 W	6·3 N	3·2 W	0·8 N	3·8 W	2·5 S	10·0 W	2·7 S	3·3 W	1·8 S	8·8 W	1·2 N	1·1 W	4·5 N	1·2 W	5·6 N	0·9 E	4·4 N	2·0 W
14 ..	0·4 N	0·5 E	2·4 N	2·4 W	3·5 N	4·6 W	6·9 N	5·0 W	0·1 S	4·0 W	2·4 S	9·5 W	1·6 S	7·0 W	2·2 S	9·6 W	0·4 S	0·3 W	4·8 N	0·8 W	4·7 N	2·0 W	7·7 N	2·8 W
15 ..	1·9 N	0·2 W	3·9 N	1·6 W	4·1 N	4·5 W	6·6 N	3·4 W	2·6 S	2·5 W	3·5 S	8·2 W	0·4 S	9·0 W	2·1 S	9·0 W	0·8 N	3·2 W	3·4 N	0·9 W	0·8 N	0·7 W	5·8 N	1·9 W
16 ..	1·9 N	0·6 W	4·5 N	1·5 W	3·3 N	4·6 W	5·1 N	5·1 W	3·0 S	2·5 W	3·6 S	9·4 W	0·4 S	7·8 W	1·4 S	8·3 W	2·1 N	3·2 W	0·9 S	0·3 W	1·8 S	0·4 E	4·6 N	1·9 W
17 ..	0·1 N	0·2 W	5·6 N	5·1 W	2·5 N	3·3 W	1·1 N	4·5 W	1·7 S	2·2 W	3·0 S	6·8 W	0·4 S	7·5 W	0·7 S	5·9 W	1·7 N	1·4 W	1·4 N	2·0 W	3·4 S	1·2 E	5·0 N	1·2 E
18 ..	0·5 S	0·7 W	5·0 N	0·4 W	4·9 N	5·1 W	0·2 N	4·1 W	1·4 S	3·3 W	3·0 S	7·2 W	1·7 S	6·2 W	1·6 S	3·6 W	1·0 N	0·4 W	2·8 N	0·2 E	2·8 S	1·3 E	4·4 N	5·8 E
19 ..	5·0 N	0·7 W	4·2 N	1·2 W	4·0 N	2·5 W	1·8 N	4·3 W	2·0 S	2·6 W	3·0 S	7·0 W	3·4 S	4·9 W	2·6 S	5·2 W	0·5 S	0·1 E	2·9 N	0·7 W	2·5 S	0·6 E	4·2 N	2·0 E
20 ..	3·3 N	0·6 W	3·5 N	1·5 W	1·7 N	3·2 W	3·2 N	5·0 W	1·4 S	4·2 W	2·9 S	7·1 W	1·6 S	5·5 W	2·2 S	6·8 W	0·9 N	0·4 W	4·3 N	0·7 W	2·9 S	3·4 E	4·3 N	0·7 E
21 ..	0·1 N	1·2 W	7·0 N	3·7 W	1·6 S	1·9 W	2·3 N	6·0 W	0·4 N	5·4 W	1·7 S	6·6 W	2·5 S	4·1 W	1·1 S	9·1 W	3·0 N	1·9 W	3·7 N	3·4 W	0·4 N	0·5 E	5·1 N	1·9 E
22 ..	1·5 S	0·3 W	7·7 N	4·4 W	0·3 S	2·1 W	3·0 N	5·2 W	1·9 N	5·5 W	2·2 S	5·6 W	4·0 S	0·7 W	1·1 S	11·9 W	4·6 N	0·1 E	1·1 N	1·5 W	3·5 N	0·1 E	1·3 N	0·3 E
23 ..	2·0 N	0·5 W	5·1 N	4·1 W	3·1 N	3·4 W	2·2 N	4·4 W	1·0 N	5·6 W	2·1 S	4·4 W	6·2 S	2·0 E	1·3 S	15·4 W	3·6 N	2·1 W	2·5 N	0·6 W	7·0 N	2·5 W	2·0 N	0·0
24 ..	4·5 N	2·6 W	2·2 N	3·3 W	1·8 N	3·2 W	1·7 N	4·5 W	3·7 N	6·8 W	2·4 S	3·4 W	2·8 S	3·7 W	3·6 S	15·0 W	2·1 S	0·0	3·0 N	0·2 W	6·7 N	3·1 W	2·5 N	1·2 E
25 ..	3·2 N	0·7 W	4·5 N	2·2 W	1·8 N	2·8 W	4·1 N	4·3 W	5·2 N	5·1 W	2·8 S	0·5 W	1·5 S	8·9 W	2·1 S	11·2 W	1·7 N	1·1 E	3·6 N	0·4 W	6·0 N	2·9 W	7·4 N	1·0 W
26 ..	2·5 N	0·5 W	2·0 N	2·3 W	4·4 N	4·5 W	5·3 N	4·7 W	4·0 N	5·8 W	5·0 S	1·4 E	0·6 S	14·2 W	2·1 S	6·5 W	1·0 N	1·5 E	3·2 N	0·3 E	2·0 N	0·3 W	3·2 N	0·8 E
27 ..	0·7 S	0·9 W	2·1 N	2·2 W	6·8 N	4·2 W	3·2 N	5·2 W	3·2 N	6·2 W	4·7 S	1·4 E	0·9 S	15·2 W	3·1 S	3·5 W	2·9 N	0·5 E	1·7 N	2·2 E	3·1 N	1·1 W	4·6 N	0·9 W
28 ..	4·9 S	2·8 E	2·4 N	3·1 W	5·0 N	2·6 W	2·4 N	4·2 W	1·7 N	4·5 W	2·7 S	0·4 W	4·1 S	14·1 W	1·8 S	5·2 W	0·1 S	3·7 E	4·3 N	0·3 W	1·9 N	0·6 W	7·2 N	2·1 W
29 ..	0·3 S	5·2 W	..	..	5·5 S	2·1 W	1·8 N	3·3 W	2·2 N	4·5 W	1·8 S	7·6 W	1·3 S	13·6 W	1·4 S	10·9 W	1·2 S	2·9 E	2·8 N	2·0 E	2·2 N	2·0 E	5·4 N	0·8 W
30 ..	4·0 N	1·2 W	..	..	0·1 N	3·7 W	0·9 N	3·8 W	0·9 N	3·6 W	0·2 N	13·6 W	1·3 S	10·7 W	1·8 S	14·6 W	7·8 S	6·4 E	1·7 N	2·7 E	4·6 N	0·1 E	4·3 N	1·5 E
31 ..	6·9 N	1·5 W	..	..	4·5 N	3·4 W	..	..	6·1 S	0·7 E	..	..	0·3 S	12·0 W	0·3 S	11·9 W	..	..	1·5 N	0·8 E	..	..	5·2 N	0·1 W
Monthly mean ..	2·6 N	0·9 W	4·1 N	2·6 W	3·3 N	3·5 W	3·5 N	4·5 W	0·9 N	4·4 W	1·4 S	6·7 W	2·3 S	7·5 W	2·1 S	9·4 W	0·1 N	2·2 W	1·8 N	1·0 W	2·2 N	0·2 E	3·7 N	0·7 E
Annual Variation ..	1·2 N	2·6 E	2·7 N	0·9 E	1·9 N	0·0	2·1 N	1·0 W	0·5 S	0·9 W	2·8 S	3·2 W	3·7 S	4·0 W	3·5 S	5·9 W	1·3 S	1·3 E	0·4 N	2·5 E	0·8 N	3·7 E	2·3 N	4·2 E

The Velocities of the Mean Components for the year are 1·4N and 3·5W.

TABLE VId.—*Showing the Mean diurnal inequality of the Velocity of the North or South and East or West Components of the Wind for each month of the year 1919, and for the whole year.*

In miles per hour.

1919. Bombay Civil Time Hourly Intervals.	Month.																								Year.	
	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.			
	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.
0 to 1	0·7 S	1·7 E	0·6 S	1·5 E	0·2 N	1·2 E	1·1 N	1·2 E	0·4 N	1·1 E	0·5 S	0·3 W	0·3 S	1·5 E	0·0	0·2 E	0·0	0·9 E	0·7 S	1·0 E	1·1 S	2·7 E	0·9 S	0·9 E	2·3 S	1·1 E
1 „ 2	0·4 S	2·0 E	0·6 S	1·6 E	0·1 N	1·8 E	0·6 N	2·2 E	0·2 S	1·6 E	0·1 S	0·4 W	0·3 S	1·8 E	0·2 S	0·6 E	0·4 N	1·0 E	0·7 S	1·8 E	0·7 S	2·9 E	1·8 S	1·7 E	0·3 S	1·5 E
2 „ 3	0·8 S	2·3 E	0·0	1·3 E	0·1 N	1·9 E	0·1 N	2·7 E	0·1 N	1·8 E	0·1 N	0·6 W	0·2 S	1·2 E	0·4 S	0·5 E	0·1 N	0·9 E	0·7 S	2·2 E	1·0 S	3·2 E	1·9 S	2·6 E	0·4 S	1·7 E
3 „ 4	0·7 S	2·5 E	0·2 S	2·2 E	0·3 S	3·1 E	0·6 S	3·0 E	0·0	2·3 E	0·3 S	0·3 W	0·6 S	0·9 E	0·2 S	0·0 E	0·2 S	0·8 E	0·8 S	3·1 E	0·8 S	3·4 E	1·8 S	3·3 E	0·5 S	2·0 E
4 „ 5	1·0 S	3·2 E	0·6 S	2·9 E	0·6 S	3·4 E	0·6 S	3·9 E	0·1 S	2·3 E	0·1 N	0·9 E	0·7 S	0·4 E	0·1 N	0·1 E	0·4 S	1·5 E	0·9 S	3·7 E	1·2 S	3·7 E	1·4 S	3·7 E	0·6 S	2·5 E
5 „ 6	0·5 S	2·6 E	0·9 S	3·7 E	0·8 S	4·1 E	0·8 S	4·6 E	0·0	2·6 E	0·0	0·5 E	0·3 S	0·3 E	0·3 N	0·4 W	0·7 S	1·4 E	0·7 S	3·6 E	1·1 S	4·0 E	0·7 S	3·8 E	0·5 S	2·6 E
6 „ 7	0·6 S	3·4 E	1·2 S	3·7 E	1·8 S	5·4 E	1·3 S	5·0 E	0·0	2·9 E	0·1 S	1·1 E	0·2 S	0·6 W	0·9 N	0·3 W	0·6 S	2·0 E	0·7 S	3·7 E	1·7 S	4·6 E	0·8 S	4·6 E	0·7 S	3·0 E
7 „ 8	1·1 S	4·3 E	2·2 S	4·2 E	2·3 S	5·7 E	1·1 S	5·2 E	0·0	3·0 E	0·4 N	1·2 E	0·0	1·0 W	0·1 S	0·1 E	0·9 S	2·3 E	1·0 S	4·1 E	1·4 S	5·2 E	0·7 S	5·2 E	0·9 S	3·0 E
8 „ 9	1·6 S	4·6 E	1·9 S	4·7 E	2·0 S	5·2 E	1·6 S	4·6 E	0·4 S	2·4 E	0·4 N	1·7 E	0·5 N	1·2 W	0·2 N	0·6 E	0·9 S	2·7 E	1·4 S	4·3 E	1·5 S	4·6 E	1·1 S	5·4 E	0·9 S	3·3 E
9 „ 10	1·7 S	4·8 E	1·8 S	4·7 E	2·0 S	4·4 E	1·8 S	3·0 E	0·6 S	1·5 E	0·4 N	0·5 E	0·0	1·5 W	0·0	0·4 E	0·8 S	2·1 E	1·3 S	4·3 E	1·6 S	3·4 E	1·4 S	5·3 E	1·1 S	2·7 E
10 „ 11	1·6 S	3·1 E	1·5 S	1·8 E	1·6 S	0·4 E	1·6 S	0·3 W	0·6 S	0·3 W	0·2 S	0·7 E	0·2 S	0·4 W	0·3 S	0·3 W	0·7 S	0·8 E	1·6 S	2·3 E	1·6 S	1·8 E	1·4 S	3·8 E	1·1 S	1·1 E
11 „ 12	1·3 S	0·4 E	1·1 S	1·7 W	1·0 S	2·1 W	1·2 S	2·7 W	0·7 S	1·3 W	0·1 S	0·4 E	0·4 S	0·4 W	0·0	0·3 W	0·8 S	0·1 W	1·3 S	0·6 E	1·7 S	0·0	1·7 S	1·0 E	0·9 S	0·7 W
12 „ 13	1·0 S	2·2 W	0·0	3·8 W	0·3 S	3·8 W	1·1 S	4·1 W	0·6 S	2·4 W	0·2 S	0·2 E	0·1 N	1·0 W	0·1 S	0·6 W	0·2 N	2·3 W	1·3 S	2·8 W	1·0 S	3·0 W	1·4 S	1·0 W	0·6 S	2·2 W
13 „ 14	0·5 S	4·3 W	0·4 N	4·6 W	0·3 N	4·9 W	0·1 S	5·0 W	0·2 S	3·4 W	0·4 N	0·6 W	0·3 N	0·4 W	0·3 S	0·0	0·1 N	3·0 W	0·7 S	4·0 W	0·3 S	4·6 W	0·7 S	2·9 W	1·0 S	3·1 W
14 „ 15	0·6 N	5·5 W	0·8 N	5·0 W	0·8 N	5·7 W	1·2 N	5·3 W	0·2 N	3·9 W	0·1 S	0·8 W	0·1 S	0·3 W	0·2 S	0·3 W	0·4 N	3·2 W	0·3 N	4·8 W	0·1 N	5·8 W	0·0	1·4 W	0·3 N	3·8 W
15 „ 16	1·3 N	5·4 W	1·3 N	5·1 W	1·6 N	5·7 W	1·7 N	5·1 W	0·1 N	4·0 W	0·0	1·1 W	0·1 N	0·6 W	0·0	0·7 W	0·6 N	3·4 W	0·8 N	5·2 W	1·0 N	6·1 W	0·7 N	5·8 W	0·8 N	4·0 W
16 „ 17	1·6 N	5·2 W	1·6 N	4·8 W	2·4 N	5·1 W	1·8 N	4·9 W	0·2 N	3·7 W	0·0	0·6 W	0·6 N	0·8 W	0·0	0·8 W	1·3 N	3·9 W	1·2 N	5·1 W	1·6 N	6·1 W	1·8 N	6·1 W	1·2 N	4·0 W
17 „ 18	2·5 N	4·7 W	2·3 N	3·6 W	1·9 N	4·7 W	1·7 N	4·5 W	0·6 N	3·2 W	0·2 N	0·9 W	0·3 N	0·3 W	0·6 N	0·6 W	0·5 N	2·4 W	2·0 N	4·5 W	2·5 N	5·1 W	2·7 N	5·7 W	1·5 N	3·4 W
18 „ 19	2·7 N	4·0 W	2·4 N	3·0 W	1·6 N	3·4 W	1·3 N	3·2 W	0·8 N	1·9 W	0·4 S	0·7 W	0·2 N	0·6 W	0·1 N	0·3 W	0·9 N	2·1 W	2·2 N	3·6 W	3·3 N	3·8 W	3·6 N	5·1 W	1·6 N	2·6 W
19 „ 20	3·0 N	2·9 W	2·2 N	1·9 W	1·4 N	2·3 W	0·9 N	1·8 W	0·6 N	0·7 W	0·2 S	0·4 W	0·4 N	0·0	0·3 S	0·2 E	0·9 N	0·2 W	2·8 N	2·5 W	3·1 N	3·2 W	3·7 N	4·3 W	1·5 N	1·7 W
20 „ 21	1·9 N	1·8 W	1·6 N	1·1 W	0·7 N	0·9 W	0·8 N	0·4 W	0·6 N	0·2 W	0·2 S	0·7 W	0·0	0·7 E	0·1 S	0·2 W	0·4 N	0·2 E	2·2 N	1·6 W	2·4 N	1·7 W	2·9 N	3·6 W	1·1 N	0·9 W
21 „ 22	0·8 N	0·2 W	0·8 N	0·2 E	0·4 N	0·4 E	0·4 N	0·2 E	0·4 N	0·8 E	0·5 S	0·1 W	0·1 N	0·8 E	0·4 S	0·3 E	0·4 N	0·9 E	1·2 N	0·6 W	1·3 N	0·6 W	1·4 N	2·0 W	0·5 N	0·0
22 „ 23	0·4 N	0·4 E	0·0	0·9 E	0·6 N	0·3 E	0·4 N	0·5 E	0·3 S	1·0 E	0·4 S	0·1 E	0·2 N	0·9 E	0·4 S	0·5 E	0·5 N	1·5 E	0·2 N	0·1 E	0·8 N	0·4 W	0·4 N	0·9 W	0·2 N	0·4 E
23 „ 24	0·2 S	1·1 E	0·0	1·1 E	0·3 N	0·7 E	0·6 N	0·5 E	0·2 N	1·0 E	0·3 N	0·3 W	0·2 S	0·8 E	0·4 S	0·1 E	0·2 N	1·9 E	0·6 N	0·7 E	0·0	0·5 E	0·5 S	0·0	0·1 N	0·6 E

Aggregate and Mean Velocities and Relative Frequency of Different Winds, 1919.

TABLE VIe.—*Showing for the year 1919 the sums of the Velocities, and the Mean Velocities, in miles per hour, of the Winds which blew in each Month, from each of the sixteen Principal Directions and also the number of hourly Observations which those sums comprise; the latter numbers indicating the Relative Frequency of the same Wind (as to direction) in the several Months, and of different Winds during the same Month.*

1919.	N.			N. N. E.			N. E.			E. N. E.			E.			E. S. E			S. E.			S. S. E.		
Month.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observation.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.
	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.
January	299	66	4·5	270	67	4·0	134	36	3·7	394	90	4·4	165	41	4·0	253	48	5·3	52	12	4·3	48	10	4·8
February	352	68	5·2	156	41	3·8	104	30	3·5	189	43	4·4	32	7	4·6	81	22	3·7	27	9	3·0	0	0	0·0
March	158	35	4·5	229	57	4·0	55	16	3·4	108	34	3·2	61	17	3·6	49	9	5·4	74	14	5·3	12	4	3·0
April	142	28	5·1	142	34	4·2	51	15	3·4	90	19	4·7	0	0	0·0	24	10	2·4	15	4	3·7	9	4	2·2
May	6	1	6·0	8	2	4·0	2	1	2·0	13	4	3·2	0	0	0·0	28	3	9·3	15	6	2·5	70	10	7·0
June	4	1	4·0	12	2	6·0	0	0	0·0	10	2	5·0	0	0	0·0	82	9	9·1	62	7	8·9	298	36	8·3
July	0	0	0·0	0	0	0·0	0	0	0·0	15	3	5·0	4	1	4·0	25	3	8·3	104	12	8·7	99	14	7·1
August	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	12	3	4·0
September.. ..	65	17	3·8	82	23	3·6	85	24	3·5	246	50	4·9	221	56	3·9	215	37	5·8	185	29	6·4	138	14	9·9
October	148	32	4·6	111	29	3·8	266	62	4·3	503	98	5·1	126	22	5·7	163	30	5·4	167	22	7·6	417	24	17·4
November.. ..	263	53	5·0	195	46	4·2	219	42	5·2	562	114	4·9	186	44	4·2	496	76	6·5	82	16	5·1	65	16	4·1
December ..	391	83	4·7	224	51	4·4	219	43	5·1	1,122	166	6·8	319	61	5·2	147	35	4·2	0	0	0·0	0	0	0·0
Year ..	1,828	384	4·7	1,429	352	4·1	1,135	269	4·2	3,252	623	5·2	1,114	249	4·5	1,563	282	5·5	783	131	6·0	1,168	135	8·7

1919.	S.			S. S. W.			S. W.			W. S. W.			W.			W. N. W.			N. W.			N. N. W.			Number of Ovservations.	
Month.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Calm.	Variable.
	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.		
January ..	64	11	5·8	20	4	5·0	2	1	2·0	65	20	3·2	326	61	5·3	396	69	5·7	898	117	7·7	731	91	8·0	0	0
February ..	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	114	18	6·3	718	110	6·5	1,456	182	8·0	954	141	6·8	1	0
March	64	8	8·0	72	15	4·8	33	7	4·7	55	16	3·4	366	60	6·1	1,267	167	7·6	1,547	171	9·0	725	113	6·4	1	0
April	13	13	3·3	19	7	2·7	19	7	2·7	38	9	4·2	523	71	7·4	1,586	183	8·7	1,727	218	7·9	533	98	5·4	0	0
May	79	13	6·1	133	32	4·2	9·7	29	3·4	395	88	4·5	981	160	6·1	1,530	261	5·7	659	105	6·3	128	28	4·6	1	0
June	187	33	5·7	139	28	5·0	94	22	4·3	2,496	321	7·8	1,598	139	11·5	905	82	11·0	268	28	9·6	99	10	9·9	0	0
July	123	23	5·4	75	18	4·2	569	100	5·7	2,572	310	8·3	2,881	255	11·3	33	5	6·6	0	0	0·0	0	0	0·0	0	0
August ..	0	0	0·0	3·3	9	3·7	200	53	3·8	3,694	383	9·6	3,420	288	11·9	69	7	9·9	4	1	4·0	0	0	0·0	0	0
September ..	30	6	5·0	14	4	3·5	33	8	4·1	906	117	7·7	827	131	6·3	582	106	5·5	405	68	6·0	128	29	4·4	1	0
October ..	51	5	10·2	8	1	8·0	22	3	7·3	82	15	5·5	363	65	5·6	788	119	6·6	871	136	6·4	484	80	6·0	1	0
November ..	29	8	3·6	46	12	3·8	85	24	3·5	38	12	3·2	118	21	5·6	351	56	6·3	814	105	7·8	537	75	7·2	0	0
December ..	0	0	0·0	0	0	0·0	1	1	1·0	40	12	3·3	56	10	5·6	250	49	5·1	674	95	7·1	1,123	136	8·3	2	0
Year ..	670	120	5·6	559	130	4·3	1,155	255	4·5	10,381	1,303	8·0	11,573	1,279	9·0	8,475	1,214	7·0	9,323	1,226	7·6	5,442	801	6·8	7	0

DINES' ANEMOGRAPH.

TABLE VIf.—*Mean Velocity of the Wind in miles per hour for each day of Bombay Civil Time; also the mean Monthly Velocity and its variation from the mean of the year.*

1919. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1 ..	6·5	8·9	4·4	6·0	7·2	11·2	8·2	11·0	9·5	18·4	4·0	5·8
2 ..	5·1	7·2	5·6	7·5	7·4	6·2	12·6	11·7	8·2	13·1	3·9	6·5
3 ..	3·9	5·9	6·2	8·7	7·0	7·7	7·4	10·7	8·4	7·7	4·6	7·3
4 ..	4·8	5·5	4·5	8·2	3·9	9·0	8·0	9·0	8·4	4·2	8·5	6·9
5 ..	4·3	5·7	4·0	6·1	6·0	10·8	7·2	9·0	7·7	6·7	6·6	5·7
6 ..	4·7	6·9	4·4	6·5	6·2	11·0	9·1	9·4	7·0	4·7	4·2	5·1
7 ..	5·2	7·0	7·0	4·6	5·4	12·3	8·6	10·7	5·3	3·5	5·4	3·5
8 ..	7·0	6·3	8·7	6·0	5·5	11·9	7·2	11·6	3·8	4·6	5·2	4·4
9 ..	6·6	3·7	8·0	7·2	4·0	9·1	8·3	9·6	4·7	5·8	4·5	4·0
10 ..	7·2	5·6	8·5	7·2	4·3	10·6	6·1	9·0	5·3	6·2	5·2	4·1
11 ..	6·9	4·3	8·4	7·7	4·7	9·3	4·8	8·9	4·4	6·7	4·4	3·3
12 ..	7·7	4·6	8·2	8·4	4·2	9·6	5·0	8·7	4·9	6·3	6·2	3·5
13 ..	5·5	5·2	8·6	7·8	4·7	9·4	4·2	8·6	4·2	5·7	7·5	6·2
14 ..	3·9	4·7	6·0	9·3	4·5	9·0	6·7	9·2	3·7	6·0	5·9	8·8
15 ..	4·7	6·6	7·2	8·0	4·4	8·0	8·0	8·6	3·1	4·3	4·5	6·8
16 ..	4·0	5·7	6·0	7·2	5·0	9·2	6·8	7·7	4·5	2·9	4·2	5·6
17 ..	3·7	7·5	5·0	4·9	3·3	6·6	6·5	5·7	3·8	4·2	4·1	6·6
18 ..	3·7	6·6	8·0	5·6	3·3	7·1	5·7	4·7	3·5	4·7	4·7	9·1
19 ..	6·6	5·7	6·1	5·0	3·2	6·9	6·0	5·8	2·7	4·5	4·2	6·7
20 ..	4·8	5·2	4·9	6·2	3·8	6·7	6·3	6·5	2·8	6·3	6·0	6·2
21 ..	3·5	8·3	4·3	7·0	4·9	6·0	5·6	8·5	4·7	5·2	5·0	7·1
22 ..	3·5	9·0	4·7	6·3	5·6	5·3	5·3	11·0	7·1	3·0	5·8	4·0
23 ..	5·0	6·8	6·1	4·9	5·7	4·4	7·9	14·3	5·5	4·8	7·9	4·6
24 ..	6·5	4·9	5·0	4·7	7·6	4·5	5·3	14·7	5·9	5·3	7·8	5·2
25 ..	6·2	5·6	5·0	6·6	8·7	6·5	8·3	10·8	4·3	5·5	7·0	7·7
26 ..	4·9	5·0	7·4	7·2	7·6	7·8	12·9	6·3	4·5	5·6	4·7	5·7
27 ..	4·1	4·4	9·2	6·5	6·9	6·2	14·2	4·7	4·9	6·7	5·0	6·0
28 ..	7·0	4·5	6·3	5·6	4·7	4·6	14·2	5·6	5·7	5·7	4·1	7·9
29 ..	6·3	..	7·2	5·2	4·8	7·6	12·6	10·1	4·6	6·6	5·5	6·2
30 ..	6·2	..	5·2	4·7	3·9	12·5	9·6	13·7	11·3	5·7	6·3	6·3
31 ..	8·0	..	6·9	..	7·7	..	10·6	10·7	..	4·1	..	7·0
Monthly mean...	5·4	6·0	6·4	6·6	5·4	8·2	8·0	9·3	5·5	6·0	5·4	5·9
Annual Variation ..	−1·1	−0·5	−0·1	+0·1	−1·1	+1·7	+1·5	+2·8	−1·0	−0·5	−1·1	−0·6

TABLE VIg.—*Showing the mean diurnal inequality of the Velocity of the Wind in miles per hour for each month of the year 1919, and for the whole year.*

1919. Bombay Civil Time Hourly intervals.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
0 to 1..	−1·7	−1·8	−1·7	−0·7	−1·3	+0·1	−0·7	−0·4	−1·3	−1·0	−0·7	−2·0	−1·1
1 „ 2..	−1·4	−1·5	−1·9	−1·6	−1·8	+0·7	−0·7	−0·6	−1·6	−1·2	−1·0	−1·9	−1·2
2 „ 3..	−1·2	−1·3	−2·0	−2·1	−1·9	+0·7	−0·8	−0·5	−1·3	−1·2	−1·2	−1·4	−1·2
3 „ 4..	−0·9	−1·4	−2·4	−2·4	−2·1	+0·5	−0·1	−0·2	−1·3	−0·9	−0·8	−0·9	−1·1
4 „ 5..	−1·0	−1·6	−2·6	−2·5	−2·2	0·0	+0·5	−0·2	−1·0	−0·3	−0·4	−0·3	−1·0
5 „ 6..	−1·1	−1·8	−2·6	−2·7	−2·2	+0·3	+0·3	+0·2	−0·6	−0·6	−0·4	+0·1	−0·9
6 „ 7..	−0·7	−2·2	−2·5	−3·3	−2·0	0·0	+1·0	+0·1	−0·5	−0·5	0·0	+0·4	−0·8
7 „ 8..	−0·6	−2·5	−2·4	−2·9	−1·5	−0·1	+1·1	−0·1	−0·2	−0·7	+0·5	+0·9	−0·7
8 „ 9..	−0·3	−1·8	−1·6	−2·6	−1·3	−0·4	+1·1	−0·5	−0·6	−0·5	+0·4	+0·8	−0·6
9 „ 10..	−0·2	−1·5	−1·6	−2·1	−0·9	+0·5	+0·9	−0·3	−0·8	−0·7	−0·5	+0·5	−0·6
10 „ 11..	−0·8	−1·3	−1·4	−1·1	0·0	+0·3	0·0	+0·1	−0·8	−1·4	−1·6	−0·6	−0·7
11 „ 12..	−1·5	−0·1	+0·3	+0·7	+0·8	+0·6	+0·1	+0·2	−0·2	−1·4	−1·8	−1·5	−0·3
12 „ 13..	−0·4	+1·3	+2·0	+2·1	+1·8	+0·4	+0·5	+0·4	+0·4	−0·4	−0·5	−1·2	+0·5
13 „ 14..	+0·8	+2·3	+3·2	+3·4	+2·4	+0·2	+0·2	0·0	+1·1	+0·8	+0·5	−0·4	+1·2
14 „ 15..	+2·0	+3·1	+4·0	+4·1	+3·1	+0·1	+0·5	+0·1	+1·4	+1·6	+1·4	+0·4	+1·8
15 „ 16..	+2·6	+3·4	+4·4	+4·2	+3·2	0·0	+0·3	+0·7	+1·8	+2·0	+2·0	+1·4	+2·2
16 „ 17.	+2·7	+3·4	+4·1	+3·9	+2·9	0·0	+0·4	+0·6	+2·4	+2·2	+1·8	+2·1	+2·2
17 „ 18..	+2·7	+3·1	+3·6	+3·7	+2·4	0·0	0·0	+0·5	+1·3	+2·1	+1·8	+2·6	+2·0
18 „ 19..	+2·3	+2·7	+2·4	+2·5	+1·5	−0·2	+0·1	+0·1	+0·9	+1·9	+2·0	+2·6	+1·6
19 „ 20..	+1·7	+1·7	+1·1	+1·0	+0·3	−0·8	−0·3	−0·1	+1·3	+1·3	+1·5	+2·3	+0·9
20 „ 21..	+0·6	+0·9	−0·1	+0·1	−0·2	0·0	−0·7	0·0	+0·4	+0·6	+0·4	+1·2	+0·3
21 „ 22..	−0·7	−0·5	−1·0	−0·9	−0·5	−0·7	−0·9	−0·3	−0·1	−0·5	−0·7	−0·6	−0·6
22 „ 23..	−1·0	−1·4	−1·1	−0·8	−0·9	−0·8	−0·8	−0·6	−0·5	−1·0	−1·0	−1·7	−1·0
23 „ 24..	−1·3	−1·6	−1·2	−0·8	−0·6	−0·4	−0·7	−0·3	−0·7	−1·3	−1·1	−2·0	−1·0
Range ..	4·4	5·9	7·0	7·1	5·4	1·5	2·0	1·3	4·0	3·6	3·8	4·6	3·4

	Miles.
The mean velocity for June to August	8·5
The mean velocity for September to May	5·8
The mean velocity for the year	6·5

Temperature of the Ground, 1919.

TABLE VII.—*Showing for each month the Mean Temperature of the Ground in the thermometer shed and its Annual Variation at the respective depths of 1, 9, 20, 60 and 132 inches below the surface.*

Depth.	1 inch.		9 inches.		20 inches.		60 inches.		132 inches.	
Month, 1919.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.
	°	°	°	°	°	°	°	°	°	°
January	76·9	− 5·1	78·5	− 4·6	82·4	− 3·5	85·1	− 1·0	83·5	− 0·7
February	77·1	− 4·9	78·2	− 4·9	82·0	− 3·9	84·2	− 1·9	83·1	− 1·1
March	80·2	− 1·8	80·4	− 2·7	83·2	− 2·7	84·1	− 2·0	83·4	− 0·8
April	83·9	+ 1·9	84·1	+ 1·0	85·9	0	85·1	− 1·0	84·0	− 0·2
May	87·2	+ 5·2	87·2	+ 4·1	88·9	+ 3·0	86·5	+ 0·4	84·6	+ 0·4
June	85·8	+ 3·8	87·0	+ 3·9	89·7	+ 3·8	88·0	+ 1·9	84·7	+ 0·5
July	83·4	+ 1·4	84·8	+ 1·7	87·8	+ 1·9	87·8	+ 1·7	84·1	− 0·1
August	82·2	+ 0·2	83·8	+ 0·7	87·0	+ 1·1	87·2	+ 1·1	84·0	− 0·2
September	82·9	+ 0·9	84·0	+ 0·9	86·3	+ 0·4	86·6	+ 0·5	84·5	+ 0·3
October	83·8	+ 1·8	84·7	+ 1·6	86·8	+ 0·9	86·6	+ 0·5	84·7	+ 0·5
November	82·7	+ 0·7	83·8	+ 0·7	86·3	+ 0·4	86·3	+ 0·2	84·9	+ 0·7
December	78·4	− 3·6	80·2	− 2·9	84·5	− 1·4	85·9	− 0·2	84·4	+ 0·2
Year ..	82·0	..	83·1	..	85·9	..	86·1	..	84·2	..

Maxima and Minima of different Meteorological Elements, 1919.

TABLE VIII.—*In which are collected the individual observations in each month of the year which showed the greatest and the least values of the following elements,* viz., *Barometric Readings corrected for Temperature, Temperature of Air, Pressure of Vapour, and Additional Capacity of Air.*

1919.	Barometric Readings.			Temperature of Air.			Pressure of Vapour.			Additional Capacity.		
Month.	Greatest.	Least.	Range.	Greatest.	Least.	Range.	Greatest.	Least.	Range.	Greatest.	Least.	Range.
	In.	In.	In.	°	°	°	In.	In.	In.	In.	In.	In
January	30·085	29·809	0·276	84·0	63·3	20·7	0·808	0·308	0·500	0·635	0·079	0·556
February	·074	·782	·292	82·0	64·2	17·8	·800	·362	·438	·540	·047	·493
March	·017	·725	·292	87·5	71·0	16·5	·949	·559	·390	·537	·066	·471
April	29·971	·680	·291	89·4	75·8	13·6	·968	·642	·326	·608	·087	·521
May	·897	·615	·282	91·9	77·9	14·0	·999	·682	·317	·617	·103	·514
June	·836	·488	·348	91·3	76·1	15·2	1·033	·804	·229	·495	·029	·466
July	·823	·402	·421	86·5	75·5	11·0	·016	·806	·210	·321	·033	·288
August	·845	·570	·275	84·6	76·1	8·5	0·978	·808	·170	·291	·047	·244
September	·974	·640	·334	86·8	75·7	11·1	1·077	·743	·334	·423	·043	·380
October	·970	·572	·398	91·8	75·2	16·6	·013	·618	·395	·857	·051	·806
November	30·029	·687	·342	89·3	70·0	19·3	0·944	·474	·470	·784	·020	·764
December	·085	·752	·333	89·5	62·2	27·3	·802	·344	·458	·798	·091	·707
Year ..	30·085	29·402	0·683	91·9	62·2	29·7	1·077	0·308	0·769	0·857	0·020	0·837

Relative Humidity of the Air, 1919.

TABLE IX*a*.—*Daily and monthly means of observations taken at 6, 10, 14, 16 and 22 hours daily.*

Complete Saturation = 1·000.

1919. Date.	January.	February.	March.	April	May.	June.	July.	August.	September.	October.	November.	December.
1 ..	0·771	0·584	0·745	0·696	0·750	0·775	0·918	0·902	0·845	0·891	0·737	0·700
2 ..	·716	·638	·694	·732	·810	·744	·920	·861	·844	·926	·692	·638
3 ..	·706	·733	·782	·685	·784	·736	·892	·854	·836	·865	·739	·608
4 ..	·702	·760	·770	·693	·760	·791	·853	·848	·835	·776	·762	·596
5 ..	·725	·759	·798	·775	·763	·733	·840	·864	·817	·811	·715	·643
6 ..	·768	·721	·798	·687	·744	·788	·841	·836	·828	·826	·722	·687
7 ..	·692	·680	·760	·772	·747	·891	·867	·854	·813	·821	·690	·705
8 ..	·590	·719	·756	·693	·749	·868	·856	·848	·806	·789	·693	·740
9 ..	·591	·774	·817	·722	·762	·905	·849	·830	·813	·759	·684	·758
10 ..	·631	·747	·787	·744	·772	·822	·838	·809	·801	·773	·708	·746
11 ..	·621	·741	·782	·732	·751	·797	·851	·814	·796	·780	·737	·778
12 ..	·568	·807	·695	·776	·765	·778	·809	·822	·781	·835	·718	·764
13 ..	·584	·782	·687	·762	·773	·815	·810	·814	·754	·766	·563	·719
14 ..	·681	·785	·740	·754	·763	·851	·806	·838	·785	·704	·706	·565
15 ..	·740	·773	·726	·728	·773	·835	·807	·869	·843	·730	·787	·576
16 ..	·748	·781	·765	·728	·732	·806	·793	·846	·833	·814	·809	·721
17 ..	·752	·649	·764	·775	·725	·810	·794	·883	·909	·751	·797	·706
18 ..	·765	·601	·747	·724	·692	·811	·808	·900	·896	·699	·769	·604
19 ..	·669	·610	·745	·761	·705	·806	·847	·881	·866	·665	·738	·618
20 ..	·687	·634	·745	·802	·716	·780	·920	·837	·848	·726	·771	·670
21 ..	·775	·604	·745	·792	·720	·771	·858	·841	·830	·769	·767	·632
22 ..	·754	·658	·713	·749	·694	·796	·882	·860	·836	·792	·688	·660
23 ..	·719	·708	·720	·760	·673	·781	·843	·867	·854	·732	·602	·724
24 ..	·612	·752	·783	·729	·664	·774	·851	·848	·879	·718	·661	·738
25 ..	·590	·707	·784	·769	·705	·857	·859	·917	·899	·703	·641	·584
26 ..	·678	·763	·724	·808	·738	·840	·926	·875	·854	·723	·757	·629
27 ..	·748	·726	·733	·712	·747	·851	·906	·858	·844	·805	·794	·700
28 ..	·747	·721	·703	·744	·782	·846	·854	·900	·836	·741	·748	·571
29 ..	·644		·836	·792	·742	·867	·881	·873	·873	·696	·702	·602
30 ..	·685		·810	·816	·719	·908	·865	·893	·880	·660	·705	·661
31 ..	·696		·708		·732		·848	·825		·738		·687
Monthly mean ..	0·689	0·711	0·753	0·747	0·740	0·814	0·855	0·857	0·838	0·767	0·720	0·669
Annual Variation ..	−·074	−·052	−·010	−·016	−·023	+·051	+·092	+·094	+·075	+·004	−·043	−·094

Annual mean .. .. 0·763

Extent of Cloudy Sky, 1919.

TABLE IX*b*.—*Daily and monthly means of observations taken at 6, 10, 14, 16 and 22 hours daily, the whole sky being reckoned as 10·0.*

1919. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	Novermber.	December.
1 ..	7·4	0·2	..	4·0	0·8	2·0	10·0	9·4	8·4	9·0	2·0	3·0
2 ..	6·8	..	1·4	7·4	1·0	3·4	10·0	8·8	9·0	10·0	3·6	..
3 ..	2·4	..	..	1·6	3·0	4·2	6·6	9·2	8·4	5·0	7·0	..
4 ..	1·8	3·0	3·2	1·8	2·4	6·4	4·8	9·4	9·0	4·0	5·8	..
5 ..	..	6·2	1·0	1·8	1·6	5·2	7·2	9·4	9·0	3·4	1·0	3·0
6 ..	0·6	8·2	0·4	2·2	3·0	10·0	9·8	9·2	7·6	5·8	3·0	0·2
7 ..	4·8	3·2	1·6	..	1·6	10·0	9·8	10·0	7·6	3·6	0·2	0·4
8 ..	5·2	..	1·6	0·4	2·6	10·0	9·6	9·8	4·6	2·0	0·2	..
9 ..	1·4	..	1·4	2·6	1·8	9·0	9·6	9·8	4·0	1·0	1·0	..
10 ..	..	..	3·2	1·2	4·4	9·0	6·8	7·8	3·0	0·8	0·2	0·2
11 ..	..	..	1·2	1·4	2·0	6·8	7·2	8·8	3·2	0·8	..	4·8
12 ..	..	1·2	0·2	2·6	2·8	7·4	7·6	8·8	4·0	1·0	0·8	8·4
13 ..	..	1·2	..	0·8	2·0	10·0	7·0	9·0	2·0	0·2	..	4·6
14 ..	..	1·2	..	..	1·4	10·0	6·6	9·4	3·4	2·0	4·4	2·0
15 ..	..	1·2	..	0·2	1·8	10·0	5·8	9·4	9·2	3·0	0·6	..
16 ..	0·4	1·6	..	..	2·6	9·2	4·8	9·0	7·4	1·8	2·4	..
17 ..	1·2	1·6	0·4	..	3·6	10·0	4·8	9·4	9·4	1·6	3·6	..
18 ..	0·4	..	0·2	..	4·2	10·0	6·2	9·2	8·0	2·0	6·0	0·8
19 ..	..	..	0·2	2·6	3·4	7·8	8·2	10·0	6·4	1·2	5·4	2·4
20 ..	0·4	..	..	1·8	2·4	5·8	9·8	6·4	6·8	0·6	4·0	0·8
21 ..	0·6	..	1·4	1·4	3·2	4·2	8·2	7·4	3·6	0·4	3·0	..
22 ..	3·0	0·2	1·0	..	2·2	6·0	5·6	8·8	5·6	6·0	7·2	2·0
23 ..	2·0	..	0·2	0·4	2·4	5·8	6·4	9·4	6·0	2·4	4·6	2·8
24 ..	..	0·6	2·4	1·4	0·6	4·0	9·2	8·8	7·2	..	..	..
25 ..	..	1·2	1·2	1·0	1·8	8·0	8·8	9·6	7·6	1·0	3·8	..
26 ..	..	..	..	..	5·2	7·6	10·0	8·4	8·0	2·0	..	..
27 ..	1·4	0·8	0·8	..	4·8	8·6	10·0	8·4	9·2	3·6	0·2	..
28 ..	1·6	..	2·8	..	9·6	8·8	10·0	10·0	8·8	1·6	1·6	..
29 ..	3·4		2·8	..	4·4	8·0	10·0	7·8	9·0	..	2·6	..
30 ..	2·2		1·4	2·6	3·6	10·0	8·4	9·6	9·0	2·4	2·6	..
31 ..	0·2		3·6		5·0		6·4	9·0		1·0		..
Monthly mean ..	1·5	1·1	1·1	1·3	2·9	7·6	7·9	9·0	6·8	2·6	2·6	1·1
Annual Variation ..	−2·3	−2·7	−2·7	−2·5	−0·9	+3·8	+4·1	+5·2	+3·0	−1·2	−1·2	−2·7

Inches.

For the days which have no entry 0·0 is to be understood.

Mean of the months from January to April, November and December .. .. .. 1·5

Mean of the months from May to October .. 6·1

Mean for the year .. .. .. 3·8

Meteorological Data, 1919.

TABLE X.—*Five-day Means.*

Number of five-day period.	Barometic pressure.	Temperature of the air.	Pressure of vapour.	Additional capacity of the air.	*Rainfall.	North or south component of wind.	East or west component of wind.	Number of five-day period.	Barometic pressure.	Temperature of the air.	Pressure of vapour.	Additional capacity of the air.	*Rainfall.	North or south Component of wind.	East or west component of wind.
	In.	°	In.	In.	In.	Miles.	Miles.		In.	°	In.	In.	In.	Miles.	Miles.
1 ..	29·956	76·0	0·666	0·238	..	2·7 N	0·1 E	38 ..	29·649	82·0	0·932	0·163	1·48	3·5 S	7·7 W
2 ..	·983	75·7	·590	·303	..	4·9 N	2·0 W	39 ..	·712	82·4	·919	·190	0·92	2·3 S	5·0 W
3 ..	·962	72·3	·519	·282	..	3·7 N	0·7 W	40 ..	·730	82·6	·914	·204	1·39	1·3 S	7·1 W
4 ..	·935	74·4	·624	·233	..	2·0 N	0·6 W	41 ..	·623	80·9	·916	·141	2·95	3·4 S	2·4 W
5 ..	·923	74·1	·594	·253	..	1·7 N	1·1 W	42 ..	·611	80·0	·909	·116	9·19	1·7 S	13·2 W
6 ..	·929	73·8	·597	·241	0·11	0·1 N	1·0 W	43 ..	·613	81·1	·917	·145	1·10	1·2 S	11·5 W
7 ..	·974	72·5	·546	·264	..	5·9 N	2·3 W	44 ..	·716	80·4	·882	·156	1·16	3·5 S	9·7 W
8 ..	·960	74·4	·636	·219	..	4·5 N	2·7 W	45 ..	·749	81·2	·878	·186	0·99	2·4 S	9·1 W
9 ..	·937	74·2	·671	·178	..	2·2 N	2·5 W	46 ..	·755	80·1	·881	·145	2·40	1·6 S	7·3 W
10 ..	·966	72·6	·567	·239	..	4·6 N	2·0 W	47 ..	·764	80·1	·880	·147	1·74	1·7 S	9·7 W
11 ..	·873	75·3	·609	·274	..	5·1 N	3·4 W	48 ..	·656	79·2	·883	·116	3·02	2·5 S	8·3 W
12 ..	·898	75·1	·653	·222	..	2·6 N	2·4 W	49 ..	·702	79·6	·866	·145	2·11	1·5 S	11·1 W
13 ..	·942	75·8	·694	·201	..	2·2 N	3·0 W	50 ..	·734	80·7	·868	·180	0·74	2·1 S	7·7 W
14 ..	·924	76·7	·731	·190	..	6·3 N	4·1 W	51 ..	·865	80·9	·848	·210	0·04	1·2 N	2·2 W
15 ..	·912	76·8	·668	·256	..	4·9 N	4·7 W	52 ..	·805	80·9	·865	·189	1·03	1·5 N	1·8 W
16 ..	·925	76·9	·698	·231	..	2·3 N	3·2 W	53 ..	·810	81·8	·939	·151	0·34	1·8 N	0·5 W
17 ..	·904	77·6	·718	·233	..	2·2 N	3·2 W	54 ..	·748	80·8	·921	·132	4·45	1·4 N	0·2 E
18 ..	·852	81·0	·822	·239	..	2·2 N	3·2 W	55 ..	·698	79·6	·894	·116	2·07	6·2 S	3·6 E
19 ..	·845	80·6	·762	·287	..	5·2 N	4·0 W	56 ..	·805	81·5	·890	·187	..	1·0 N	3·8 W
20 ..	·834	80·8	·783	·274	..	2·7 N	4·6 W	57 ..	·872	81·1	·842	·223	..	3·9 N	2·3 W
21 ..	·779	80·6	·794	·254	..	5·7 N	4·8 W	58 ..	·854	83·0	·856	·277	..	2·6 N	1·0 W
22 ..	·779	81·2	·819	·251	..	2·3 N	4·6 W	59 ..	·835	83·0	·840	·294	..	3·0 N	1·2 W
23 ..	·864	81·9	·835	·258	..	2·7 N	4·9 W	60 ..	·861	82·4	·818	·295	0·18	2·8 N	0·3 E
24 ..	·803	82·9	·876	·253	..	2·7 N	4·2 W	61 ..	·865	82·0	·792	·309	..	2·6 N	1·2 E
25 ..	·792	82·2	·869	·236	..	3·2 N	5·3 W	62 ..	·786	82·6	·828	·289	0·18	2·1 N	1·6 E
26 ..	·791	83·6	·892	·261	..	1·0 N	5·0 W	63 ..	·786	80·8	·753	·303	..	2·6 N	0·3 W
27 ..	·740	84·8	·935	·266	..	0·3 S	3·7 W	64 ..	·776	81·2	·761	·309	..	2·6 N	0·1 W
28 ..	·765	85·7	·891	·344	..	1·9 S	3·0 W	65 ..	·881	81·2	·834	·23	..	2·2 S	1·4 E
29 ..	·819	86·1	·875	·374	..	2·4 N	5·7 W	66 ..	·912	77·1	·637	·298	..	5·0 N	1·7 W
30 ..	·737	85·6	·932	·298	..	2·4 N	4·9 W	67 ..	·923	79·2	·740	·264	..	3·3 N	0·1 E
31 ..	·728	86·1	·947	·301	0·41	2·5 S	3·0 W	68 ..	·913	78·7	·645	·342	..	3·1 N	2·5 E
32 ..	·664	82·7	·940	·184	13·80	3·6 N	9·9 W	69 ..	·880	76·9	·697	·233	..	0·7 N	0·9 E
33 ..	·645	84·2	·958	·214	0·28	2·1 S	10·3 W	70 ..	·854	75·2	·591	·288	..	4·6 N	1·4 W
34 ..	·604	84·2	·958	·216	0·13	3·2 S	7·7 W	71 ..	·967	78·5	·644	·340	..	4·6 N	2·3 E
35 ..	·708	84·2	·920	·257	0·13	2·3 S	5·4 W	72 ..	·951	73·7	·560	·278	..	3·3 N	0·3 E
36 ..	·659	81·2	·905	·160	1·47	3·4 S	1·1 W	73 ..	·939	72·4	·539	·265	..	5·3 N	0·5 W
37 ..	·587	79·4	·908	·101	15·31	1·9 S	9·1 W								

*Five-day sums, *not means*.

Barometric Pressure, 1920.

TABLE Ia.—*Daily and monthly means.*

Height of the Barometer above mean sea-level = 37 feet.

1920. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	In.	In	In	In.	In.	In.	In.	In.	In.	In.	In	In.
1 ..	29·933	29·873	29·864	29·778	29·726	29·729	29·716	29·691	29·779	29·716	29·823	29·856
2 ..	·936	·909	·877	·809	·702	·700	·703	·728	·769	·744	·828	·882
3 ..	·926	·907	·859	·843	·723	·727	·688	·764	·766	·771	·845	·893
4 ..	·913	·920	·858	·884	·724	·722	·631	·739	·772	·726	·845	·915
5 ..	·890	·955	·900	·861	·731	·683	·627	·782	·735	·651	·854	·917
6 ..	·906	30·005	·959	·821	·750	·582	·615	·768	·713	·701	·817	·923
7 ..	·957	29·999	·907	·827	·776	·497	·595	·788	·722	·766	·817	·891
8 ..	30·000	·944	·838	·803	·827	·534	·579	·795	·726	·803	·863	·868
9 ..	29·939	·954	·886	·809	·824	·546	·603	·818	·733	·846	·886	·890
10 ..	·908	·967	·929	·827	·792	·523	·635	·790	·783	·880	·870	·874
11 ..	·963	30·006	·891	·808	·767	·442	·634	·742	·812	·854	·865	·861
12 ..	·979	29·977	·878	·834	·805	·477	·650	·762	·806	·859	·885	·893
13 ..	·941	·957	·829	·865	·845	·570	·654	·755	·811	·899	·922	·928
14 ..	·935	·911	·854	·876	·849	·647	·615	·747	·801	·886	·916	·918
15 ..	·947	·894	·926	·837	·856	·674	·622	·746	·822	·859	·899	·898
16 ..	·926	·929	·901	·818	·857	·687	·660	·790	·824	·873	·903	·894
17 ..	·916	·945	·833	·813	·868	·684	·665	·793	·821	·869	·862	·905
18 ..	·887	·929	·832	·772	·864	·665	·699	·763	·843	*·856	·817	·903
19 ..	·898	·947	·872	·791	·804	·637	·721	·754	·857	*·895	·802	·925
20 ..	·952	·946	·851	·807	·782	·603	·694	·738	·876	·898	·812	·920
21 ..	·965	·935	·850	·752	·792	·585	·640	·743	·851	·860	·807	·871
22 ..	·961	·950	·817	·759	·774	·577	·567	·754	·796	·866	·783	·829
23 ..	·917	·952	·783	·754	·771	·587	·545	·758	·789	·898	·798	·860
24 ..	·930	·961	·797	·782	·775	·672	·545	·774	·782	·922	·790	·868
25 ..	·934	·963	·800	·745	·799	·710	·579	·751	·784	†·929	·821	·913
26 ..	·922	·963	·772	·745	·794	·690	·659	·734	·746	·881	·841	·908
27 ..	·934	·924	·772	·752	·779	·714	·700	·712	·752	·821	·854	·908
28 ..	·911	·845	·787	·803	·772	·736	·714	·706	·769	·824	·825	·891
29 ..	·898	805	·784	·787	·761	·761	·705	·717	·773	·854	·815	·942
30 ..	·894	..	·753	·757	·761	·751	·729	·775	·750	·830	·843	·936
31 ..	·903	..	·769	..	·781	..	·731	·802	..	·820	..	·896
Monthly mean.	29·930	29·937	29·846	29·804	29·788	29·637	29·649	29·759	29·785	29·831	29·844	29·890
Annual Variation.	+·121	+·128	+·037	—·005	—·021	—·172	—·160	—·050	—·024	+·022	+·031	+·087

† Mean of 29 days

Annual mean .. 29·809 Inches

TABLE Ib.—*Mean diurnal inequality for each month of the year and for the whole year.*

Unity = 0·001 inch.

1920. Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
0 7	+8	+8	+7	+5	+4	+9	+6	+4	+3	—4	—1	—3	+4
1 7	—4	—5	—6	—6	—10	—7	—10	—10	—11	—18	—13	—11	—9
2 7	—18	—19	—20	—20	—20	—19	—23	—24	—23	—29	—25	—22	—22
3 7	—29	—29	—28	—24	—26	—26	—29	—29	—29	—30	—29	—28	—28
4 7	—29	—31	—28	—19	—23	—27	—30	—28	—25	—25	—23	—25	—26
5 7	—21	—22	—16	—6	—12	—18	—22	—21	—13	—10	—10	—13	—15
6 7	—2	—2	+3	+9	+3	—2	—8	—10	+1	+11	+11	+5	+2
7 7	+22	+18	+26	+32	+23	+14	+9	+8	+18	+33	+34	+29	+22
8 7	+46	+43	+48	+53	+40	+28	+21	+22	+41	+53	+55	+53	+42
9 7	+65	+61	+62	+65	+52	+37	+31	+33	+50	+66	+68	+67	+55
10 7	+63	+68	+64	+61	+49	+37	+32	+35	+50	+60	+60	+61	+53
11 7	+45	+51	+51	+50	+44	+32	+30	+32	+39	+46	+39	+38	+41
12 7	+14	+24	+24	+28	+27	+18	+20	+20	+20	+11	+7	+5	+18
13 7	—19	—8	—4	—1	+4	+2	+5	+5	—5	—15	—23	—24	—7
14 7	—45	—34	—32	—31	—19	—15	—10	—12	—30	—40	—45	—44	—30
15 7	—54	—51	—51	—48	—35	—31	—21	—25	—43	—51	—53	—50	—43
16 7	—54	—53	—55	—60	—46	—39	—30	—32	—46	—51	—51	—46	—47
17 7	—45	—47	—50	—55	—45	—36	—25	—27	—36	—38	—41	—37	—40
18 7	—31	—34	—38	—15	—33	—27	—17	—17	—23	—23	—26	—20	—28
19 7	—8	—15	—18	—24	—20	—9	—2	—3	—4	—6	—5	—1	—10
20 7	+13	+7	+1	—7	—3	+5	+11	+10	+11	+12	+11	+12	+7
21 7	+28	+20	+17	+10	+13	+18	+21	+21	+24	+22	+21	+20	+20
22 7	+28	+27	+20	+15	+22	+27	+24	+26	+23	+19	+20	+18	+22
23 7	+19	+18	+15	+12	+18	+22	+19	+19	+17	+11	+12	+9	+16
Range.	119	121	119	125	98	76	62	67	96	117	121	117	102

* Mean of 18 hourly values; these days have been rejected for taking the monthly mean.

TABLE IIa.—*Daily and monthly means.*

1920. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	°	°	°	°	°	°	°	°	°	°	°	°
1 ..	76·7	74·0	77·7	81·5	83·0	85·5	84·4	78·3	81·0	82·7	80·3	77·4
2 ..	76·6	73·7	76·6	81·5	84·2	85·9	82·0	79·3	81·2	82·8	81·0	77·7
3 ..	77·2	73·1	78·2	80·6	84·3	86·5	79·9	80·0	81·7	85·3	80·5	76·7
4 ..	77·4	75·0	78·6	79·6	84·2	86·4	80·3	80·8	81·5	84·2	80·7	76·3
5 ..	76·0	73·3	77·2	78·8	84·1	86·6	80·5	79·7	81·4	84·3	81·6	75·5
6 ..	74·3	70·1	78·2	80·9	84·6	85·9	78·8	81·0	80·5	83·3	82·2	78·3
7 ..	77·6	69·4	78·4	80·9	84·6	86·5	78·5	81·5	80·2	82·7	81·2	77·7
8 ..	77·9	72·2	78·0	81·2	84·3	84·3	80·2	81·6	81·2	84·0	80·6	76·6
9 ..	78·8	72·1	79·3	82·1	84·3	83·1	80·9	81·2	81·4	84·0	79·9	75·6
10 ..	78·7	69·7	78·3	81·0	85·0	79·4	81·1	81·1	80·4	83·8	79·4	76·3
11 ..	78·1	72·5	78·7	79·9	85·1	83·0	81·9	81·0	79·3	82·8	80·0	75·8
12 ..	77·4	72·3	79·1	79·5	85·1	83·3	81·3	80·9	81·7	82·8	79·8	77·3
13 ..	78·4	72·6	78·4	80·2	84·8	80·1	81·8	81·2	81·2	82·0	81·3	77·3
14 ..	78·8	74·2	77·9	80·8	84·8	82·9	81·6	80·9	80·7	82·6	80·7	76·8
15 ..	78·4	75·7	77·9	81·2	84·9	83·6	80·8	81·2	80·5	82·4	80·6	76·5
16 ..	77·7	73·7	78·3	81·6	84·1	84·0	80·9	79·3	80·7	82·2	80·6	75·6
17 ..	76·5	74·9	78·8	81·6	84·5	84·1	81·3	81·0	81·2	81·9	80·2	76·9
18 ..	75·8	77·5	80·0	82·8	84·3	83·9	81·6	81·5	81·8	81·9	81·0	76·3
19 ..	74·8	78·0	80·4	83·8	84·1	83·5	81·4	80·9	81·1	82·8	80·2	75·5
20 ..	74·6	79·2	80·9	83·4	84·2	82·8	81·5	81·4	81·8	83·6	81·1	74·7
21 ..	77·3	79·4	80·9	84·2	85·0	83·5	81·7	80·9	81·1	82·8	80·6	75·3
22 ..	77·6	78·9	80·7	84·8	85·2	83·8	81·2	81·6	80·7	83·2	80·7	75·6
23 ..	75·0	79·6	79·9	84·9	85·4	83·4	81·5	81·7	80·9	83·6	82·7	75·8
24 ..	74·7	79·1	81·0	84·2	84·8	83·6	80·3	81·8	81·1	84·0	81·3	74·3
25 ..	74·3	79·0	83·0	83·7	85·4	83·3	80·4	81·4	81·9	82·5	81·3	72·2
26 ..	74·9	79·5	82·4	84·2	85·3	82·3	79·9	80·2	82·6	83·5	82·2	71·6
27 ..	75·3	79·7	81·9	83·8	85·1	83·9	80·3	80·8	82·7	81·9	79·9	74·1
28 ..	77·1	80·3	80·8	84·0	85·1	83·7	81·1	81·1	83·0	82·4	78·4	74·8
29 ..	76·4	81·0	80·8	84·6	85·0	84·3	81·3	81·4	83·1	81·3	76·6	75·4
30 ..	75·8	..	81·6	84·0	85·4	84·3	81·3	81·5	83·6	80·5	76·7	76·3
31 ..	74·5	..	82·3	..	85·8	..	79·0	81·1	..	80·8	..	74·6
Monthly mean.	76·6	75·5	79·5	82·2	84·7	84·0	80·9	80·9	81·4	82·9	80·4	75·8
Annual Variation ..	−3·8	−4·9	−0·9	+1·8	+4·3	+3·6	+0·5	+0·5	+1·0	+2·5	0·0	−4·6

Annual mean .. 80·4

TABLE IIb.—*Mean diurnal inequality for each month of the year and for the whole year.*

1920. Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.	°	°	°	°	°	°	°	°	°	°	°	°	°
0 2	−2·0	−2·2	−1·9	−2·0	−2·1	−1·4	−0·5	−1·2	−1·4	−2·0	−2·8	−2·7	−1·9
1 2	−2·4	−2·6	−2·3	−2·5	−2·4	−1·5	−0·6	−1·3	−1·6	−2·2	−3·1	−3·0	−2·1
2 2	−2·8	−2·9	−2·5	−3·0	−2·6	−1·8	−0·6	−1·4	−1·8	−2·5	−3·4	−3·6	−2·4
3 2	−3·0	−3·4	−3·2	−3·3	−2·8	−1·9	−0·6	−1·7	−2·1	−2·9	−3·8	−4·0	−2·7
4 2	−3·2	−3·6	−3·7	−3·5	−3·0	−1·8	−0·8	−1·9	−2·2	−3·1	−4·2	−4·5	−3·0
5 2	−3·6	−4·1	−4·1	−3·8	−3·2	−2·1	−1·1	−2·0	−2·5	−3·5	−4·7	−4·9	−3·3
6 2	−4·0	−4·6	−4·4	−4·0	−3·2	−2·0	−0·8	−2·0	−2·6	−3·8	−5·1	−5·3	−3·5
7 2	−4·1	−4·9	−4·0	−2·9	−2·2	−1·4	−0·9	−1·7	−2·3	−3·4	−4·7	−5·4	−3·2
8 2	−2·8	−3·1	−2·1	−1·2	−0·8	−0·4	−0·3	−0·8	−1·3	−2·1	−3·3	−4·0	−1·9
9 2	−1·2	−1·1	−0·2	+0·5	+0·5	+0·6	+0·1	−0·1	−0·3	−0·6	−1·4	−2·0	−0·4
10 2	+0·9	+1·1	+1·6	+1·9	+1·9	+1·7	+0·8	+0·9	+0·7	+1·2	+1·0	+0·7	+1·2
11 2	+3·0	+3·8	+3·0	+2·9	+3·1	+2·5	+1·5	+1·7	+1·8	+2·8	+3·7	+3·3	+2·8
12 2	+4·4	+4·7	+4·0	+4·1	+4·0	+2·9	+1·8	+2·1	+2·8	+4·2	+6·4	+5·8	+3·9
13 2	+5·2	+5·3	+4·8	+4·5	+4·5	+2·8	+2·0	+2·4	+3·3	+4·8	+7·1	+7·3	+4·5
14 2	+5·5	+5·4	+5·0	+4·8	+4·6	+2·9	+1·3	+2·6	+3·6	+5·1	+7·2	+7·2	+4·7
15 2	+5·1	+5·1	+5·0	+4·6	+4·2	+2·6	+1·5	+2·9	+3·4	+4·9	+6·6	+6·9	+4·4
16 2	+4·0	+4·4	+4·4	+3·9	+3·5	+2·0	+0·7	+2·5	+2·7	+3·7	+5·0	+5·7	+3·5
17 2	+2·5	+3·1	+3·3	+2·6	+2·2	+1·2	+0·5	+1·6	+1·9	+2·3	+2·9	+3·7	+2·3
18 2	+1·2	+1·6	+1·5	+0·8	+0·4	0	−0·2	+0·4	+0·6	+1·0	+1·5	+2·1	+0·9
19 2	+0·5	+0·8	+0·4	−0·2	−0·7	−0·5	−0·4	−0·2	−0·2	0	+0·8	+1·3	+0·1
20 2	+0·2	+0·4	−0·1	−0·6	−1·1	−0·9	−0·7	−0·6	−0·5	−0·5	+0·2	+0·5	−0·3
21 2	−0·4	−0·3	−0·6	−1·1	−1·4	−1·1	−0·9	−0·7	−0·7	−0·9	−0·7	−0·5	−0·8
22 2	−1·1	−1·0	−1·0	−1·4	−1·6	−1·1	−0·7	−0·9	−1·1	−1·5	−1·7	−1·7	−1·2
23 2	−1·7	−1·6	−1·6	−1·8	−1·8	−1·4	−0·9	−0·9	−1·1	−1·7	−2·5	−2·3	−1·6
Range ..	96	103	94	88	78	50	31	49	62	89	123	127	82

TABLE IIc.—*Showing the maximum temperature of the air on each day during the year 1920.*

1920. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	°	°	°	°	°	°	°	°	°	°	°	°
1 ..	87·6	82·0	85·0	88·7	91·0	92·8	89·3	80·6	86·3	88·3	89·1	85·9
2 ..	87·8	80·9	84·2	88·5	90·9	93·0	88·1	83·3	86·3	89·1	92·6	85·3
3 ..	85·8	78·4	85·2	88·3	91·0	92·8	83·1	84·2	86·6	91·2	91·2	83·7
4 ..	84·1	81·3	85·7	87·6	90·8	93·0	82·7	84·5	86·3	89·7	91·0	83·8
5 ..	80·0	79·3	85·1	87·7	90·3	92·5	85·6	85·1	85·9	91·4	89·6	84·9
6 ..	76·2	77·9	86·3	89·1	91·4	93·5	82·3	85·1	85·7	89·5	93·1	88·9
7 ..	83·5	78·9	87·2	88·9	91·6	94·4	81·1	86·3	85·1	88·3	88·8	87·6
8 ..	84·5	81·1	85·1	88·6	91·0	91·0	83·0	86·2	85·3	89·5	88·0	87·3
9 ..	85·6	78·3	85·9	91·4	91·0	90·4	84·1	85·5	85·9	89·3	87·3	84·9
10 ..	85·9	79·1	86·3	88·5	91·5	92·3	84·9	85·7	83·9	90·2	87·9	86·1
11 ..	84·5	81·9	86·5	87·6	91·4	85·8	85·1	85·3	82·1	89·6	89·3	85·3
12 ..	85·1	81·2	85·9	88·3	91·2	86·6	85·3	85·1	85·7	89·0	89·1	89·1
13 ..	85·7	82·9	85·0	88·1	91·3	86·1	85·3	84·9	86·0	88·1	93·0	89·5
14 ..	86·0	82·3	84·9	88·3	91·2	87·1	84·7	84·6	85·6	88·4	91·4	86·7
15 ..	86·9	81·9	85·2	88·5	91·6	87·2	82·5	85·3	85·6	88·5	92·3	86·3
16 ..	84·8	81·1	87·4	88·3	90·6	89·1	83·1	82·9	85·9	86·6	91·7	85·6
17 ..	84·2	83·0	84·9	87·3	91·1	89·0	83·3	86·1	86·6	88·1	90·3	90·0
18 ..	83·3	86·2	88·2	89·3	91·3	88·1	85·1	86·1	87·1	87·6	89·3	86·2
19 ..	82·6	88·1	88·9	90·3	91·1	87·5	84·2	85·1	87·1	90·3	87·6	84·3
20 ..	83·3	88·1	89·0	90·3	91·1	84·9	85·0	86·1	87·6	89·9	88·2	83·7
21 ..	86·9	89·0	89·1	92·0	91·5	86·6	85·0	86·1	87·7	90·4	86·9	86·1
22 ..	86·2	88·1	90·4	91·1	91·8	87·9	85·1	86·7	88·0	93·1	88·6	85·7
23 ..	84·2	90·2	89·9	91·7	92·2	87·5	85·3	86·6	87·1	91·4	91·1	83·7
24 ..	83·4	87·6	91·1	90·6	92·0	88·0	83·1	87·3	86·1	92·6	87·1	80·5
25 ..	83·3	89·6	91·5	90·7	92·4	88·4	82·7	86·3	87·0	92·0	87·6	79·5
26 ..	83·9	89·7	90·7	90·8	92·0	86·9	82·9	85·1	89·0	94·0	93·2	81·3
27 ..	84·3	89·2	88·6	90·5	91·5	88·4	84·3	83·9	89·1	91·7	89·2	84·0
28 ..	88·1	89·1	87·7	90·9	91·9	88·6	85·2	85·5	89·0	93·1	88·7	85·1
29 ..	84·9	89·9	88·4	91·9	92·8	89·1	84·6	86·8	89·6	90·3	85·9	86·4
30 ..	83·6		88·7	90·9	92·2	88·9	85·9	86·3	89·0	89·1	85·8	86·1
31 ..	81·6		89·9		92·6		81·1	85·6		91·2		82·6
Monthly mean.	84·4	84·0	87·4	89·5	91·5	89·0	84·3	85·3	86·6	90·0	89·5	85·4

Annual mean .. 87°2

The greatest maximum temperature recorded during the year (that of 7th June was) 94°4

TABLE IId.—*Showing the minimum temperature of the air on each day during the year 1920.*

1920. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	°	°	°	°	°	°	°	°	°	°	°	°
1 ..	70·5	69·8	72·0	77·1	79·0	81·4	80·9	76·1	78·5	80·0	75·0	70·1
2 ..	72·5	70·3	71·3	77·0	80·4	81·6	80·4	75·5	78·9	79·0	74·4	72·1
3 ..	73·3	69·3	72·5	75·3	79·6	82·8	75·6	78·6	78·5	80·2	73·3	73·3
4 ..	73·4	70·9	75·4	76·2	79·4	82·4	77·8	77·9	78·8	80·6	74·6	71·5
5 ..	74·7	71·3	72·5	72·8	79·4	82·9	77·4	76·2	78·8	79·8	75·6	68·8
6 ..	73·3	67·8	73·0	75·4	80·7	82·0	77·1	76·2	77·3	81·4	76·9	72·3
7 ..	74·4	62·3	73·5	76·3	81·0	84·0	75·4	75·5	76·2	76·9	75·8	71·8
8 ..	74·8	64·8	72·3	76·7	80·4	81·4	77·6	79·0	78·3	80·8	76·0	68·1
9 ..	75·5	70·5	75·4	75·4	80·2	80·9	77·4	78·8	79·2	79·4	74·5	69·5
10 ..	75·6	63·5	74·6	76·3	81·6	76·9	78·8	78·5	77·0	81·4	71·8	69·0
11 ..	75·6	65·0	74·5	75·0	81·6	75·9	77·5	78·6	75·8	79·4	73·8	69·7
12 ..	73·3	65·5	77·2	73·3	81·4	82·4	78·5	78·8	78·4	79·9	73·2	69·8
13 ..	73·5	65·5	74·9	75·4	81·4	77·7	78·7	79·2	76·8	78·6	74·1	70·8
14 ..	74·5	67·5	74·8	75·9	81·1	79·9	77·9	79·4	78·4	78·3	74·4	71·3
15 ..	73·0	73·3	73·3	76·4	81·4	81·5	78·4	78·8	77·4	78·6	73·5	71·4
16 ..	73·5	69·0	71·5	77·7	81·2	81·5	78·5	77·0	76·6	79·6	74·9	69·7
17 ..	71·0	69·5	72·3	78·6	81·0	81·5	78·5	77·6	77·1	79·4	73·1	69·9
18 ..	71·0	71·2	73·5	79·8	81·0	81·4	79·4	77·8	78·6	79·9	75·9	70·1
19 ..	69·5	71·5	74·9	80·4	80·4	81·4	80·2	77·0	76·9	78·9	74·9	69·9
20 ..	68·0	72·7	74·9	80·4	80·6	81·8	77·2	76·7	78·1	79·7	75·4	68·3
21 ..	72·3	72·5	75·4	78·6	81·0	81·8	79·5	78·4	78·8	77·7	76·3	68·3
22 ..	72·7	72·8	74·6	79·4	80·6	82·1	79·2	78·3	76·2	76·3	75·4	69·1
23 ..	70·0	73·0	72·1	79·4	81·8	81·4	78·9	79·6	77·9	79·0	76·2	69·5
24 ..	68·5	72·7	73·5	80·4	82·1	81·4	79·4	78·4	77·4	78·8	76·1	71·6
25 ..	68·3	72·5	75·4	79·2	81·6	81·4	77·2	78·2	78·0	74·9	77·6	69·0
26 ..	69·5	72·3	78·3	79·9	81·9	78·9	77·5	76·0	79·2	75·9	77·2	65·1
27 ..	69·0	73·5	76·5	79·9	81·6	78·9	78·5	78·2	79·1	76·4	74·6	67·1
28 ..	70·5	73·1	75·9	81·0	80·9	78·6	78·9	77·5	79·9	75·8	71·9	68·3
29 ..	70·5	73·3	76·3	80·4	81·4	79·6	78·2	78·6	79·8	75·9	71·4	68·1
30 ..	69·5		77·4	80·1	81·6	81·6	78·5	78·5	81·6	75·9	70·7	69·8
31 ..	71·8		77·4		81·4		77·5	78·9		74·0		68·4
Monthly mean.	72·0	69·9	74·4	77·7	80·9	80·9	78·3	77·9	78·1	78·5	74·6	69·7

Annual mean .. 76°1

The last minimum temperature recorded during the year (that of 7th February was). 62°3

TABLE IIIa.—*Daily and monthly means.*

1920. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
1 ..	0·620	0·646	0·679	0·856	0·852	0·897	0·899	0·851	0·850	0·918	0·734	0·657
2 ..	·572	·606	·671	·795	·913	·939	·884	·869	·863	·962	·713	·690
3 ..	·657	·620	·744	·745	·928	·956	·898	·866	·854	1·010	·717	·618
4 ..	·730	·662	·722	·714	·913	·934	·905	·881	·867	0·988	·747	·560
5 ..	·796	·583	·640	·671	·875	·922	·907	·857	·844	·979	·734	·582
6 ..	·800	·480	·729	·699	·868	·898	·896	·872	·842	·953	·745	·657
7 ..	·843	·370	·709	·729	·853	·993	·896	·881	·824	·916	·776	·613
8 ..	·839	·508	·651	·769	·836	·848	·915	·883	·817	·960	·791	·597
9 ..	·833	·564	·666	·735	·834	·855	·908	·876	·841	·899	·792	·636
10 ..	·833	·468	·734	·790	·873	·895	·909	·860	·854	·898	·752	·638
11 ..	·826	·482	·800	·770	·856	·946	·919	·857	·864	·887	·729	·619
12 ..	·766	·477	·778	·731	·842	·939	·903	·860	·880	·873	·655	·592
13 ..	·732	·548	·725	·767	·860	·942	·906	·858	·872	·860	·624	·582
14 ..	·729	·656	·698	·807	·845	·956	·897	·841	·880	·847	·658	·582
15 ..	·733	·695	·608	·837	·826	·971	·892	·859	·869	·866	·636	·583
16 ..	·695	·632	·611	·825	·835	·962	·898	·840	·869	·869	·643	·613
17 ..	·644	·642	·696	·855	·868	·942	·898	·854	·866	·880	·708	·601
18 ..	·666	·630	·745	·903	·886	·955	·898	·837	·858	·882*	·750	·621
19 ..	·643	·645	·758	·917	·877	·956	·889	·836	·858	·894*	·767	·605
20 ..	·605	·672	·768	·897	·844	·947	·891	·835	·894	·854	·813	·624
21 ..	·653	·634	·763	·870	·848	·952	·899	·846	·881	·777	·836	·603
22 ..	·591	·639	·679	·877	·875	·953	·895	·843	·886	·772	·775	·597
23 ..	·577	·623	·617	·850	·906	·936	·890	·853	·921	·865	·683	·655
24 ..	·589	·610	·692	·886	·899	·946	·906	·838	·902	·866	·600	·633
25 ..	·601	·707	·797	·876	·887	·934	·910	·811	·916	·814	·718	·573
26 ..	·603	·729	·831	·920	·877	·933	·879	·835	·948	·759	·653	·546
27 ..	·589	·708	·777	·884	·830	·921	·889	·849	·947	·724	·646	·615
28 ..	·622	·698	·805	·913	·839	·913	·896	·867	·952	·686	·659	·592
29 ..	·587	·666	·826	·916	·891	·918	·899	·864	·947	·709	·670	·580
30 ..	·607		·859	·858	·913	·909	·885	·863	·941	·704	·684	·629
31 ..	·667		·873		·894		·860	·867		·732		·549
Monthly mean.	0·685	0·607	0·731	0·822	0·869	0·932	0·897	0·855	0·880	0·856†	0·714	0·608
Annual Variation:	—·103	—·181	—·057	+·034	+·081	+·144	+·109	+·067	+·092	+·068	—·074	—·180

TABLE IIIb.—*Mean diurnal inequality for each month of the year and for the whole year.*

Unity = 0·001 inch.

1920. Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
0 2	—1	—10	—4	+8	—9	—14	—8	—12	—17	+1	+13	+6	—4
1 2	—6	—17	+5	+2	—17	—17	—11	—17	—20	—15	+8	+7	—8
2 2	—9	—7	+13	—11	—18	—17	—9	—20	—20	—26	—10	—17	—13
3 2	—22	—12	+7	—12	—19	—19	—13	—21	—19	—15	—22	—28	—16
4 2	—25	—29	0	—14	—20	—16	—12	—23	—24	—29	—30	—42	—22
5 2	—35	—38	—18	—17	—22	—19	—17	—22	—29	—38	—50	—39	—29
6 2	—39	—46	—25	—16	—13	—13	—11	—17	—16	—36	—66	—47	—29
7 2	—45	—47	—10	—4	—12	—13	—1:	—9	—11	—17	—66	—47	—25
8 2	—25	—29	+5	+7	—5	—4	—4	+6	—1	—1	—50	—31	—11
9 2	—18	—35	—3	+6	—5	+3	+4	+9	+10	+5	—49	—30	—9
10 2	—5	—24	—3	+14	—1	+12	+17	+27	+21	+9	—54	—18	0
11 2	0	—35	—2	+13	+6	+20	+23	+27	+30	+3	—76	—30	—2
12 2	—16	+17	+7	+18	+14	+31	+26	+27	+32	—8	—93	—68	—1
13 2	—11	+37	+21	+24	+17	+24	+32	+27	+36	—4	—38	—30	+11
14 2	+10	+55	+17	+29	+22	+28	+22	+34	+38	—1	—22	+24	+21
15 2	+31	+52	+12	+18	+20	+25	+21	+24	+29	+16	+30	+46	+27
16 2	+46	+49	+12	+6	+23	+18	+8	+16	+18	+32	+69	+72	+31
17 2	+40	+34	—7	—13	+17	+4	—2	+6	+4	+38	+86	+67	+23
18 2	+38	+23	—16	—22	+14	—1	—7	—6	—2	+33	+83	+82	+18
19 2	+37	+19	—9	—20	+9	—3	—6	—11	—11	+19	+85	+79	+16
20 2	+34	+25	—5	—12	+4	—8	—11	—14	—7	+22	+93	+63	+15
21 2	+26	+21	0	—7	—2	—6	—9	—12	—12	+14	+71	+15	+9
22 2	+5	+4	+3	+2	+1	—1	—5	—8	—11	+1	+48	—22	+1
23 2	—1	—5	—9	+2	—2	—9	—9	—11	—8	0	+30	—16	—3
Range.	91	102	46	51	45	50	49	57	67	76	186	150	60

* Mean of 18 hourly values; these days have been rejected for taking the monthly means.
† Mean of 29 days

Annual mean .. .. In. 0·788

TABLE IV*a*.—*Daily and monthly means.*

1920. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
1 ..	0·313	0·197	0·275	0·225	0·278	0·328	**0·284**	**0·115**	0·204	0·202	0·306	0·29
2 ..	·350	·229	·250	·283	·265	·304	·214	·134	·204	**·161**	·359	·262
3 ..	·280	·197	·227	·303	**·253**	·310	·121	·159	·229	·212	·336	·302
4 ..	·213	·210	·259	·300	·263	·329	·128	·172	·210	·185	·312	·350
5 ..	·100	·238	·296	·320	·297	**·349**	·134	·158	·230	·203	·349	·307
6 ..	**·049**	·267	·239	·361	·322	·345	·089	·185	·198	·191	·362	·321
7 ..	·105	·355	·269	·330	·338	·277	**·078**	·196	·209	·206	·295	·341
8 ..	·119	·202	·312	·301	·340	·331	·115	·198	**·250**	·208	·258	·329
9 ..	·155	·233	·337	**·368**	·347	·281	·147	·191	·233	·269	·233	·259
10 ..	·150	·264	·237	·272	·332	**·111**	·154	·203	·184	·261	·259	·280
11 ..	·139	·325	**·185**	·254	·356	·184	·170	·200	**·138**	·238	·298	·282
12 ..	·177	·322	·218	·282	·369	·202	·165	·196	·202	·251	·368	·359
13 ..	·244	·261	·250	·268	·341	·173	·178	·207	·194	·236	·461	**·366**
14 ..	·261	**·193**	·258	·249	·356	·168	·184	·214	·169	·269	·400	·348
15 ..	·245	·195	·352	·232	·379	·179	·160	·208	·176	·243	·424	·338
16 ..	·257	·207	·363	·256	·338	·206	·155	·162	·180	·232	·416	·283
17 ..	·272	·229	·294	·225	·321	·228	·171	·205	·198	·209	·334	·338
18 ..	·230	·321	·285	**·222**	·293	·208	·180	·241	·234	·204*	*·315*	·293
19 ..	·224	·320	·285	·242	·297	**·193**	·182	·221	·233	·263*	·268	·283
20 ..	·257	·330	·291	·250	·335	·175	·190	·240	·193	·298	·253	·241
21 ..	·292	·378	·294	·308	·360	·193	·184	·209	·183	·347	**·213**	·255
22 ..	**·361**	·352	·373	·322	·341	·205	·170	·236	·164	·373	·278	·296
23 ..	·297	·394	**·408**	·355	·315	·209	·185	·231	·136	·289	·446	·242
24 ..	·274	·387	·372	·290	·301	·206	·129	·250	·161	·307	**·474**	**·215**
25 ..	·251	·294	·338	·284	·337	·206	·127	**·264**	·176	·306	·352	·220
26 ..	·270	·289	·279	·258	·340	·171	·141	·196	·169	·406	·459	·236
27 ..	·292	·314	·317	·275	**·380**	·242	·146	·202	·175	·375	·382	·234
28 ..	·321	·344	·250	·255	·371	·242	·166	·197	·178	**·434**	·322	·276
29 ..	·326	**·399**	·227	·278	·316	·260	·171	·211	·189	·367	·250	·313
30 ..	·288		·224	·310	·310	·268	·184	·213	·209	·336	·238	·288
31 ..	·188		·236		·345		·131	·195		·333		·311
Monthly mean.	0·235	0·287	0·284	0·283	0·327	0·236	**0·159**	0·200	0·193	0·274†	**0·334**	0·293
Annual Variation.	−·024	+·028	+·025	+·024	+·068	−·023	−·100	−·059	−·066	+·015	+·075	+·034

Annual mean. .. .. .. In. 0·259

* Means of 18 hourly values; these days have been rejected for making the monthly mean.

† Mean of 29 days.

TABLE IV*b*.—*Mean diurnal inequality for each month of the year, and for the whole year.*

Unity = 0·001 inch.

1920. Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
0 2	−63	−59	−63	−82	−75	−38	−12	−28	−32	−74	−113	−93	−61
1 2	−66	−65	−85	−93	−75	−41	−11	−29	−35	−76	−117	−102	−66
2 2	−77	−75	−101	−94	−81	−50	−14	−29	−42	−64	−109	−92	−69
3 2	−70	−90	−114	−104	−89	−51	−11	−35	−52	−88	−111	−91	−75
4 2	−73	−79	**−123**	−109	−93	−51	−17	−42	−52	−84	−115	−91	−77
5 2	−71	−82	−116	−114	−99	−59	−22	−45	−56	−89	−109	−104	−81
6 2	**−78**	**−87**	−119	**−120**	**−107**	**−61**	−19	**−49**	**−73**	−100	−105	**−108**	**−85**
7 2	−75	**−95**	−122	−99	−73	−42	−20	−49	−66	**−106**	−92	−108	−79
8 2	−61	−63	−82	−51	−31	−14	−8	−33	−45	−77	−67	−89	−52
9 2	−22	−2	−12	+7	+21	+18	−1	**−14**	−22	**−31**	−8	−35	−8
10 2	+29	+51	+50	+52	+67	+52	+11	+3	+2	+36	+79	+30	+39
11 2	+91	**+151**	+98	+90	+113	+76	+28	+32	+34	+105	+200	+125	+95
12 2	+156	+128	+127	+133	+145	+82	+38	+49	+70	**+175**	**+325**	+249	+140
13 2	**+178**	+127	+142	+143	**+164**	**+87**	+38	+57	+85	+192	+298	**+263**	**+148**
14 2	+168	+113	+154	+150	+160	+86	**+45**	+60	+91	**+201**	+285	+206	+143
15 2	+133	+107	**+157**	**+152**	+145	+75	+33	**+80**	**+94**	**+175**	+206	+174	+128
16 2	+79	+86	+136	+136	+116	+61	+20	+73	+78	+110	+102	+104	+92
17 2	+35	+58	+114	+104	+67	+42	+17	+50	+63	+43	+5	+41	+53
18 2	−6	+18	+61	+49	−1	0	−1	+20	+23	−2	−43	−27	+8
19 2	−26	−2	+17	+11	−40	−17	−10	+2	+4	−24	−68	−48	−17
20 2	−33	−16	−5	−13	−48	−27	−15	−7	−10	−46	−97	−56	−31
21 2	−44	−36	−27	−34	−54	−38	**−23**	−12	−14	−53	−107	−41	−40
22 2	−42	−39	−43	−56	−65	−43	−21	−23	−27	−58	−116	−37	**−47**
23 2	−53	−48	−48	−65	−69	−43	−22	−22	−31	−66	**−121**	−60	−54
Range	256	246	280	272	271	148	68	129	167	307	446	371	233

TABLE Va.—*Total fall of rain (in inches) as measured by F. Chambers' self-registering gauge, the funnel of which is 28 feet above the ground.*

1920. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	..	..	..	..	..	..	..	0·75	0·02	..	..	..
2	..	..	..	..	..	..	0·61	0·52	0·06	..	..	..
3	..	0·03	..	..	..	..	1·89	0·12	0·05	..	..	..
4	..	..	..	..	..	..	0·94	0·68	0·23	..	..	..
5	0·07	0·01	..	..	..	..	1·68	0·76	0·05	..	..	..
6	0·92	..	..	..	..	..	3·77	0·04	0·12	0·30	..	..
7	..	..	..	..	..	0·25	4·38	0·01	0·30	..	..	..
8	..	..	..	..	..	..	0·92	..	..	..	..	..
9	..	0·27	..	..	..	0·07	1·16	0·06	0·03	..	..	..
10	..	..	..	..	..	5·16	0·68	0·05	0·41	..	..	..
11	..	..	..	..	..	0·48	0·08	0·10	1·44	..	..	..
12	..	..	..	..	..	0·26	0·64	0·08	..	..	..	..
13	..	..	..	..	..	0·10	0·19	0·02	0·14	..	..	..
14	..	..	..	..	..	0·07	1·07	..	0·53	..	..	..
15	..	..	..	..	..	0·01	0·43	..	0·01	..	..	..
16	..	..	..	..	..	..	0·25	0·11	..	..	..	..
17	..	..	..	..	..	..	0·06	..	0·01	..	..	..
18	..	..	..	..	..	0·08	0·06	..	..	..	..	..
19	..	..	..	..	..	0·19	0·04	0·02	0·06	0·01	..	..
20	..	..	..	..	..	0·03	0·05	0·08	0·08	..	..	..
21	..	..	..	..	..	..	0·15	0·57	0·23	..	..	..
22	..	..	..	..	..	0·19	0·29	..	0·05	..	..	..
23	..	..	..	..	..	0·02	0·11	0·03	0·16	..	..	..
24	..	..	..	..	..	0·07	0·40	0·06	..	..	..	..
25	..	..	..	..	..	0·24	0·44	0·01	..	..	..	..
26	..	..	..	..	..	0·30	0·29	0·28	..	..	..	..
27	..	..	..	..	..	..	0·14	0·13	..	..	..	..
28	..	..	..	..	..	0·01	0·08	0·37	..	..	..	..
29	..	..	..	..	..	0·02	0·21	..	..	..	..	..
30	..	..	..	..	..	..	0·20	0·13	..	..	..	..
31	..	..	..	..	..	..	0·63	0·06	..	..	..	..
Monthly total	0·99	0·31	..	..	..	7·55	21·84	4·44	3·98	0·31	..	..
Number of rainy days..	2	3	..	..	..	18	30	24	19	2	..	..

	In.
Total fall of rain in the year	39·42
Total number of rainy days in the year	98
The greatest daily fall of rain in the year (that of 10th June) was ..	5·16

No rain fell in the months of March, April, May, November and December, nor on any of the days left blank in the above table.

TABLE Vb.—*Total fall of rain (in inches) as measured by Newman's gauge placed 4½ feet above the ground.*

1920. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	..	..	..	..	..	..	..	0·78	0·02	..	..	..
2	..	..	..	..	..	..	0·63	0·54	0·06	..	..	..
3	..	0·04	..	..	..	..	1·94	0·14	0·05	..	..	..
4	..	..	..	..	..	..	0·95	0·08	0·23	..	..	..
5	0·07	0·01	..	..	..	..	1·73	0·79	0·05	..	..	..
6	0·92	..	..	..	..	..	3·94	0·04	0·12	0·33	..	..
7	..	..	..	..	..	0·29	4·59	0·01	0·29	..	..	..
8	..	..	..	..	..	..	0·98	..	..	..	..	..
9	..	0·28	..	..	..	0·09	1·19	0·07	0·02	..	..	..
10	..	..	..	..	..	5·51	0·68	0·05	0·43	..	..	..
11	..	..	..	..	..	0·54	0·08	0·10	1·47	..	..	..
12	..	..	..	..	..	0·27	0·65	0·08	..	..	..	..
13	..	..	..	..	..	0·13	0·20	0·02	0·15	..	..	..
14	..	..	..	..	..	0·09	1·15	..	0·54	..	..	..
15	..	..	..	..	..	0·01	0·44	..	0·01	..	..	..
16	..	..	..	..	..	..	0·26	0·11	..	..	..	..
17	..	..	..	..	..	..	0·06	..	0·01	..	..	..
18	..	..	..	..	..	0·10	0·06	..	..	..	..	..
19	..	..	..	..	..	0·20	0·04	0·03	0·07	0·01	..	..
20	..	..	..	..	..	0·03	0·06	0·08	0·08	..	..	..
21	..	..	..	..	..	..	0·15	0·57	0·24	..	..	..
22	..	..	..	..	..	0·20	0·29	..	0·05	..	..	..
23	..	..	..	..	..	0·02	0·12	0·02	0·16	..	..	..
24	..	..	..	..	..	0·08	0·40	0·06	..	..	..	..
25	..	..	..	..	..	0·25	0·45	0·01	..	..	..	..
26	..	..	..	..	..	0·31	0·29	0·29	..	..	..	..
27	..	..	..	..	..	..	0·14	0·13	..	..	..	..
28	..	..	..	..	..	0·01	0·08	0·39	..	..	..	..
29	..	..	..	..	..	0·03	0·22	..	..	..	..	..
30	..	..	..	..	..	..	0·20	0·13	..	..	..	..
31	..	..	..	..	..	..	0·63	0·06	..	..	..	..
Monthly total	0·99	0·33				8·16	22·60	4·58	4·05	0·34	..	..
Number of rainy days..	2	3	..	..	..	18	30	24	19	2	..	..

	In.
Total fall of rain in the year	41·05
Total number of rainy days in the year	98
The greatest daily fall of rain in the year (that of 10th June) was ..	5·51

No rain fell in the months of March, April May, November and December, nor on any of the days left blank in the above table.

Velocity of Wind, 1920.

Robinson-Beckley's Anemograph.

TABLE VIa.—*Mean velocity of the Wind in miles per hour, without regard to the Direction from which it blew for each day of Bombay Civil Time, also the mean monthly velocity and its variation from the mean of the year.*

1920. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1 ..	7·2	6·9	3·3	5·9	7·0	7·0	4·5	12·9	4·0	6·8	4·7	4·7
2 ..	8·9	4·0	3·7	4·7	4·1	6·1	6·5	10·0	4·0	7·7	5·2	6·2
3 ..	4·9	3·9	4·5	4·1	4·6	4·7	6·6	10·3	3·9	4·2	5·8	8·7
4 ..	5·0	4·7	5·7	6·1	4·9	4·1	6·6	10·5	6·4	3·7	5·8	8·4
5 ..	3·5	7·2	5·7	7·9	4·0	4·6	8·3	11·7	6·1	5·0	6·2	6·2
6 ..	6·2	7·3	6·0	8·1	5·6	10·2	8·8	11·3	6·4	4·4	6·6	5·9
7 ..	3·4	6·0	4·3	6·0	4·6	7·7	12·7	10·5	7·0	4·3	5·6	6·1
8 ..	5·2	4·3	3·8	6·0	4·9	16·4	14·0	8·2	6·2	4·0	4·0	5·6
9 ..	3·8	9·2	3·9	6·0	4·2	21·7	11·8	7·7	8·5	4·4	4·9	4·0
10 ..	3·8	9·8	7·2	5·0	4·4	20·7	10·0	8·5	10·7	6·0	5·3	4·7
11 ..	5·5	8·7	8·6	4·9	5·2	18·5	11·3	9·0	8·5	4·5	6·0	4·6
12 ..	8·2	8·9	8·6	6·0	5·0	14·5	11·3	9·0	9·6	4·9	5·2	5·2
13 ..	4·2	6·0	5·9	5·3	5·7	10·4	12·0	9·5	8·0	4·8	7·6	6·8
14 ..	4·2	5·5	5·7	6·2	5·6	7·9	11·2	10·4	6·1	6·0	6·2	6·4
15 ..	7·1	4·5	8·9	6·6	6·6	8·0	11·3	7·0	5·4	5·4	7·0	6·6
16 ..	7·4	5·7	9·7	5·6	5·6	7·5	10·4	4·5	4·6	4·5	6·4	6·0
17 ..	6·5	7·7	7·7	6·1	6·2	8·0	9·5	4·0	4·3	5·7	4·5	5·2
18 ..	5·0	7·0	5·0	7·2	7·2	11·0	8·7	4·0	4·8	4·2	3·9	4·8
19 ..	4·5	5·0	6·2	5·8	7·4	14·2	9·2	5·7	5·1	4·5	3·1	5·9
20 ..	5·1	5·9	8·6	5·9	5·2	14·1	9·4	8·0	5·9	4·0	4·4	6·1
21 ..	7·2	6·0	6·1	8·1	5·6	12·0	9·4	8·3	6·7	5·7	4·5	5·5
22 ..	8·1	5·3	6·9	4·6	5·8	11·5	9·5	8·0	6·3	4·3	4·5	5·0
23 ..	5·2	7·6	7·3	5·5	5·6	9·8	8·7	7·1	4·2	3·7	8·0	4·0
24 ..	6·4	7·5	5·9	6·1	7·7	8·7	10·5	6·2	4·7	3·9	7·8	6·7
25 ..	6·6	5·6	3·7	6·9	6·2	8·7	9·6	6·5	3·8	5·0	5·2	8·5
26 ..	7·3	4·2	5·0	6·6	7·3	10·3	10·4	6·0	4·3	5·4	6·3	6·8
27 ..	6·2	4·4	4·3	6·8	6·2	7·2	9·2	6·6	4·7	6·1	5·3	6·2
28 ..	5·0	6·0	3·6	5·8	6·8	6·8	8·0	6·8	5·1	7·1	5·1	5·9
29 ..	6·5	6·5	5·6	6·2	8·1	7·5	7·9	5·6	6·6	6·2	4·2	4·5
30 ..	8·0	..	5·5	5·7	8·0	5·4	8·1	4·5	8·2	4·7	4·3	4·4
31 ..	9·0	..	5·7	..	6·5	..	12·2	4·3	..	4·2	..	5·9
Monthly mean.	6·0	6·3	5·9	6·1	5·9	10·2	9·6	7·8	6·0	5·0	5·4	5·9
Annual Variation.	—0·7	—0·4	—0·8	—0·6	—0·8	+3·5	+2·9	+1·1	—0·7	—1·7	—1·3	—0·8

	Miles.
The mean velocity for June to August ..	9·2
The mean velocity for September to May ..	5·8
The mean velocity for the year ..	6·7

TABLE VIb.—*Showing the mean diurnal inequality of the velocity of the wind in miles per hour for each month of the year 1920, and for the whole year.*

1920. Bombay Civil Time Hourly Intervals.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
0 to 1	—1·9	—1·8	—1·6	—1·8	—1·1	—0·5	+0·7	—0·3	—0·9	—0·5	—1·4	—2·2	—1·1
1 „ 2	—1·8	—1·8	—1·9	—2·1	—1·0	—0·5	+0·6	—0·2	—0·7	—0·5	—0·8	—1·8	—1·0
2 „ 3	—1·7	—1·8	—1·9	—2·4	—1·7	—0·6	+0·6	0·0	—0·8	—0·6	—0·6	—1·5	—1·0
3 „ 4	—0·9	—0·8	—2·4	—2·4	—2·1	—0·2	+0·7	—0·2	—0·6	—0·4	0·0	—0·5	—0·8
4 „ 5	—0·7	—0·8	—2·0	—2·3	—2·1	—0·1	+1·2	+0·3	—0·7	—0·4	+0·2	—0·8	—0·7
5 „ 6	—0·7	—1·1	—1·4	—2·6	—3·0	0·0	0·0	0·0	—0·4	—0·2	+1·0	—0·1	—0·7
6 „ 7	—0·7	—1·2	—1·8	—2·4	—2·6	—0·2	+0·2	+0·3	—0·8	—0·6	+1·0	—0·3	—0·8
7 „ 8	—0·8	—1·4	—1·6	—2·3	—2·2	—0·3	—0·1	—0·1	—1·1	—0·5	+0·8	0·0	—0·8
8 „ 9	—0·4	—1·0	—1·2	—1·9	—2·1	—0·2	—0·8	+0·4	—0·8	0·0	+0·7	+0·2	—0·6
9 „ 10	—0·5	—1·4	—1·5	—1·5	—1·6	—0·2	—0·3	+0·2	—1·4	—0·1	+0·4	—0·4	—0·7
10 „ 11	—1·0	—2·1	—0·8	—0·9	—0·4	—0·1	+0·1	—0·1	—1·0	—0·5	—0·3	—1·0	—0·7
11 „ 12	—1·0	—1·3	+0·5	+0·9	+0·6	—0·4	—0·7	+0·2	—0·5	—1·1	—1·5	—1·7	—0·5
12 „ 13	—0·7	+0·2	+1·9	+2·1	+1·6	—0·1	—0·1	+0·9	+0·4	—0·2	—1·1	—1·5	+0·3
13 „ 14	+0·4	+1·6	+3·0	+3·2	+2·8	+0·5	—0·4	0·0	+1·4	+0·5	—0·6	—0·2	+1·0
14 „ 15	+0·8	+2·2	+3·4	+4·1	+3·5	+0·7	—0·2	+0·6	+1·9	+1·4	+0·7	+1·0	+1·7
15 „ 16	+2·1	+3·0	+3·6	+4·1	+3·7	+1·2	0·0	+1·0	+2·4	+1·8	+1·0	+1·5	+2·1
16 „ 17	+2·5	+3·7	+3·8	+4·2	+3·5	+1·5	+0·2	+0·8	+1·8	+1·9	+1·4	+2·3	+2·3
17 „ 18	+3·2	+3·4	+3·2	+3·6	+2·7	+0·7	—0·3	+0·3	+1·2	+1·3	+1·7	+2·9	+2·0
18 „ 19	+3·5	+3·1	+2·1	+2·4	+2·0	+0·3	—0·4	0·0	+0·9	+1·5	+2·1	+3·1	+1·7
19 „ 20	+3·5	+2·3	+0·9	+0·9	+0·4	—0·1	—0·2	—0·5	0·0	+0·8	+1·9	+2·9	+1·1
20 „ 21	+1·5	+0·7	—0·1	—0·1	—0·1	—0·6	—0·2	—0·9	0·0	+0·2	+0·2	+1·1	+0·1
21 „ 22	—0·6	—1·3	—1·2	—0·8	—0·4	—0·3	—0·3	—0·7	+0·1	—1·2	—1·3	—0·5	—0·7
22 „ 23	—2·0	—1·9	—1·4	—1·4	—0·7	—0·6	—0·1	—0·8	—0·3	—1·3	—2·4	—1·4	—1·2
23 „ 24	—2·5	—1·8	—1·4	—1·4	—0·3	—0·4	0·0	—0·6	—0·6	—1·3	—2·0	—1·9	—1·2
Range ..	6·0	5·8	6·2	6·8	6·7	2·1	2·0	1·9	3·8	3·2	4·5	5·3	3·5

Mean Daily Velocities of the North and East Components of the Wind, 1920.

TABLE VIc.—*Showing the mean velocities of the North or South and East or West Components of the Winds which blew on each day of the year 1920.*

In mlies per hour.

1920	Month.																													
	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.							
Date.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.
1 ..	4·5 N	2·6 E	5·8 N	2·9 W	0·6 N	2·3 W	2·9 N	4·6 W	3·6 N	5·3 W	3·9 N	4·3 W	0·3 S	4·4 W	2·8 S	12·3 W	2·4 S	2·8 W	5·2 N	3·8 W	3·1 N	0·5 E	1·1 N	0·8 E						
2 ..	5·0 N	3·4 E	1·5 N	0·6 W	0·5 S	1·9 W	1·8 N	4·1 W	0·0	3·4 W	2·4 N	3·9 W	0·5 S	4·8 W	4·1 S	8·8 W	2·4 S	2·9 W	6·4 N	3·3 W	3·0 N	0·7 E	3·5 N	0·4 W						
3 ..	2·0 N	1·8 E	0·1 S	2·4 E	2·3 S	0·3 E	0·8 N	3·4 W	0·6 S	4·2 W	0·2 N	4·2 W	5·2 S	0·6 W	3·5 S	9·6 W	1·9 S	3·2 W	2·3 N	1·1 W	2·2 N	1·7 E	7·7 N	2·5 W						
4 ..	3·7 N	0·2 E	0·4 S	0·4 E	0·4 N	0·7 W	5·0 N	2·3 W	0·4 N	4·8 W	0·6 N	3·8 W	1·8 S	6·2 W	2·8 S	10·0 W	0·9 S	6·1 W	2·8 S	0·5 E	3·3 N	1·7 E	7·0 N	1·1 W						
5 ..	2·4 N	0·4 W	5·5 N	2·4 W	2·1 N	1·6 W	5·3 N	3·7 W	1·0 S	3·7 W	0·8 S	3·5 W	3·1 S	7·2 W	1·3 S	11·3 W	2·3 S	5·5 W	0·5 S	0·8 W	4·0 N	0·6 E	4·9 N	0·9 W						
6 ..	1·4 N	5·5 E	5·9 N	1·8 W	3·2 N	3·0 W	6·1 N	3·6 W	0·7 S	5·4 W	6·0 N	5·2 W	1·8 S	7·7 W	1·6 S	11·0 W	1·3 S	6·0 W	2·1 S	0·5 E	4·0 N	2·0 E	2·9 N	0·4 E						
7 ..	0·5 S	2·6 E	4·9 N	1·2 W	1·7 N	2·5 W	3·1 N	3·8 W	0·3 S	4·5 W	0·8 N	2·3 W	0·6 S	12·5 W	0·6 S	10·4 W	0·5 N	6·5 W	0·8 S	0·9 E	2·4 N	0·8 E	4·3 N	0·1 E						
8 ..	1·7 N	0·3 W	1·6 S	0·3 E	0·6 S	3·0 W	2·9 N	2·6 W	0·4 N	4·7 W	15·1 S	4·9 E	2·9 S	13·4 W	2·7 S	7·7 W	0·4 S	6·0 W	0·9 S	2·3 W	0·1 N	0·3 E	3·8 N	0·7 E						
9 ..	2·3 N	0·4 W	5·0 N	1·8 W	0·4 N	3·2 W	3·0 N	4·2 W	0·1 N	4·0 W	19·2 S	8·8 E	6·4 S	9·6 W	1·8 S	7·3 W	0·0	8·2 W	1·6 N	4·0 W	2·0 N	1·2 E	2·2 N	0·8 E						
10 ..	1·1 N	0·1 W	9·2 N	1·6 W	4·0 N	2·5 W	0·1 S	2·4 W	2·1 S	3·7 W	18·6 S	5·7 E	6·1 S	7·6 W	1·6 S	8·1 W	0·7 N	10·6 W	3·1 N	4·1 W	3·6 N	0·8 E	2·4 N	1·3 E						
11 ..	3·6 N	1·7 W	8·0 N	1·6 W	7·0 N	4·3 W	2·3 N	4·2 W	3·5 S	3·8 W	17·6 S	2·1 W	3·9 S	10·5 W	3·0 S	8·4 W	1·2 N	7·8 W	2·3 N	3·0 W	2·4 N	3·3 E	1·2 N	2·1 E						
12 ..	7·2 N	1·9 W	7·8 N	2·6 W	6·2 N	4·9 W	4·4 N	3·4 W	3·0 S	3·8 W	11·7 S	7·7 W	4·9 S	10·1 W	3·6 S	8·1 W	0·8 N	8·8 W	2·7 N	2·6 W	2·0 N	3·7 E	1·5 N	1·7 E						
13 ..	3·3 N	1·4 W	3·8 N	1·4 W	2·9 N	3·0 W	2·7 N	2·9 W	0·8 N	5·6 W	8·0 S	5·6 W	3·9 S	11·3 W	2·7 S	9·0 W	3·3 N	7·2 W	0·7 N	2·7 W	1·8 S	5·6 E	2·9 N	2·1 E						
14 ..	1·9 N	0·8 E	2·6 N	3·3 W	2·9 N	3·1 W	3·3 N	4·0 W	0·9 N	5·4 W	6·5 S	4·6 W	3·7 S	10·5 W	1·0 S	10·2 W	2·6 N	5·3 W	0·5 S	0·5 W	0·3 N	4·0 E	3·3 N	1·8 E						
15 ..	4·7 N	0·3 E	1·6 N	3·8 W	5·6 N	4·6 W	3·7 N	4·6 W	0·2 N	6·5 W	2·5 S	7·3 W	5·0 S	9·9 W	1·2 N	6·8 W	0·8 N	5·2 W	0·8 N	2·6 W	3·2 S	4·5 E	3·2 N	2·0 E						
16 ..	5·5 N	2·3 W	2·0 N	0·2 E	7·9 N	4·7 W	2·3 N	5·0 W	0·3 S	5·5 W	0·4 S	7·5 W	5·6 S	8·5 W	1·1 S	0·1 W	0·9 N	3·8 W	2·9 N	2·6 W	5·5 S	1·8 E	2·0 N	2·1 E						
17 ..	4·7 N	1·6 W	6·9 N	2·1 W	6·2 N	4·1 W	3·3 N	4·0 W	2·9 N	5·2 W	1·5 S	7·8 W	4·5 S	8·2 W	0·7 N	3·6 W	0·9 N	3·6 W	4·2 N	2·1 W	1·8 S	1·5 W	2·3 N	2·3 E						
18 ..	3·3 N	2·1 W	5·5 N	0·6 W	2·2 N	2·2 W	4·5 N	5·2 W	3·6 N	4·4 W	2·0 S	10·6 W	5·1 S	6·7 W	0·1 S	3·7 W	0·9 N	3·5 W	3·3 N	1·7 W	0·2 S	0·2 W	1·0 N	1·7 E						
19 ..	3·1 N	2·0 W	3·2 N	0·9 W	4·0 N	4·3 W	0·5 N	3·8 W	3·4 N	6·3 W	0·0	14·2 W	4·3 S	7·9 W	0·3 S	5·5 W	2·2 N	3·4 W	2·5 N	0·2 E	0·7 S	0·4 E	2·5 N	0·7 E						
20 ..	3·5 N	0·0	3·8 N	0·6 W	4·6 N	5·5 W	1·3 N	4·1 W	0·9 N	5·0 W	0·0	14·1 W	5·2 S	7·6 W	0·0	8·0 W	3·3 N	4·0 W	2·4 N	0·3 W	0·9 S	2·1 E	4·9 N	0·8 W						
21 ..	4·1 N	2·2 E	4·9 N	1·0 W	3·6 N	4·3 W	5·3 N	5·4 W	0·1 N	5·5 W	0·1 S	12·0 W	6·7 S	6·7 W	0·5 N	8·1 W	3·6 N	1·3 W	3·9 N	0·9 W	1·2 N	0·3 W	3·9 N	0·4 E						
22 ..	2·5 N	3·4 E	3·6 N	1·0 W	5·5 N	2·9 W	0·7 S	2·8 W	0·2 N	4·5 W	2·2 S	11·0 W	6·6 S	6·8 W	0·0	8·0 W	3·0 N	1·2 E	0·4 N	2·8 E	0·1 N	0·0	2·6 N	1·5 E						
23 ..	3·2 N	1·1 E	6·7 N	1·8 W	5·6 N	3·4 W	1·4 S	3·2 W	1·8 N	5·0 W	4·5 S	8·5 W	5·3 S	6·7 W	0·8 N	6·9 W	1·2 S	2·1 E	1·4 N	0·5 E	3·5 N	6·0 W	0·5 S	1·3 E						
24 ..	4·7 N	1·6 W	5·9 N	2·1 W	4·8 N	2·2 W	1·6 S	4·5 W	3·5 N	6·7 W	3·4 S	8·0 W	2·5 S	9·9 W	0·5 N	6·1 W	3·5 S	1·5 E	0·6 N	1·2 E	6·1 N	4·1 W	3·9 N	1·1 W						
25 ..	5·5 N	1·5 W	3·5 N	1·7 W	0·5 N	1·5 W	3·5 S	4·2 W	1·9 N	5·7 W	3·0 S	7·9 W	5·3 S	7·8 W	0·0	6·5 W	1·5 S	0·4 E	2·8 N	0·2 E	4·5 N	0·4 E	6·8 N	0·6 W						
26 ..	6·2 N	1·3 W	1·9 N	0·7 W	2·0 N	3·5 W	1·6 N	4·5 W	3·1 N	6·5 W	2·3 S	9·7 W	6·0 S	8·1 W	0·2 N	5·0 W	1·1 N	0·5 E	3·2 N	1·7 E	4·8 N	1·7 E	5·8 N	1·0 W						
27 ..	4·4 N	0·8 W	1·7 N	0·5 W	1·2 S	3·1 W	4·2 N	5·1 W	1·5 N	4·7 W	4·4 S	5·6 W	3·9 S	8·2 W	0·1 S	6·5 W	1·3 N	0·1 E	3·2 N	1·3 E	3·2 N	3·9 E	4·8 N	0·2 W						
28 ..	2·9 N	0·0	3·5 N	1·4 W	0·0	2·7 W	3·1 N	4·5 W	3·4 N	4·3 W	4·8 S	4·8 W	5·6 S	5·8 W	2·3 S	6·3 W	3·6 N	1·5 W	2·8 N	3·2 E	2·8 S	4·0 E	4·5 N	0·4 E						
29 ..	5·0 N	1·8 W	4·7 N	2·5 W	2·7 N	3·4 W	2·9 N	4·8 W	4·5 N	4·8 W	2·8 S	6·8 W	4·7 S	6·1 W	3·4 S	4·2 W	3·8 N	2·4 W	3·4 N	1·1 E	..	..	3·2 N	0·5 E						
30 ..	6·6 N	3·2 W	..	..	1·8 N	3·0 W	1·3 N	5·1 W	4·5 N	6·3 W	2·0 S	5·0 W	3·6 S	7·2 W	3·3 S	2·6 W	5·5 N	5·6 W	3·2 N	0·1 W	3·0 N	0·6 E	1·9 N	0·9 E						
31 ..	7·5 N	3·6 W	..	..	2·4 N	4·0 W	..	..	2·3 N	3·2 W	..	..	2·9 S	11·6 W	3·3 S	2·3 W	..	..	2·3 N	1·2 E	..	..	4·3 N	0·2 W						
Monthly mean.	3·8 N	0·1 W	4·1 N	1·3 W	2·8 N	3·1 W	2·8 N	4·0 W	1·0 N	4·9 W	4·0 S	5·6 W	4·1 S	8·1 W	1·4 S	7·2 W	0·7 N	3·8 W	1·9 N	0·8 W	1·5 N	1·2 E	3·4 N	0·5 E						
Annual Variation ..	2·8 N	3·0 E	3·1 N	1·8 E	1·8 N	0·0	1·8 N	0·9 W	0·0	1·8 W	5·0 S	2·5 W	5·5 S	5·0 W	2·4 S	4·1 W	0·3 S	0·7 W	0·9 N	2·3 E	0·5 N	4·3 E	2·4 N	3·6 E						

The Velocities of the Mean Components for the year are 1·0 N and 3·1 W.

TABLE VId.—*Showing the mean diurnal inequality of the velocity of the North or South and East or West Components of the wind for each month of the year 1920, and for the whole year.*

In miles per hour.

1920.	Month.																																	
	January.				February.				March.				April.				May.				June.				July.				August.				September.			
Bombay Civil Time Hourly Intervals.	N. or S.		E. or W.		N. or S.		E. or W.		N. or S.		E. or W.		N. or S.		E. or W.		N. or S.		E. or W.		N. or S.		E. or W.		N. or S.		E. or W.		N. or S.		E. or W.		N. or S.		E. or W.	
0 to 1	1·1	S	1·4	E	1·1	S	1·2	E	0·2	S	0·5	E	0·1	S	1·5	E	0·5	N	1·0	E	0·9	S	1·2	E	0·7	S	0·5	W	0·4	S	0·3	E	0·8	S	0·9	E
1 „ 2	1·0	S	1·2	E	1·2	S	1·4	E	0·5	S	1·1	E	0·0		1·7	E	0·8	N	1·2	E	0·4	S	1·3	E	0·2	S	0·4	W	0·3	S	0·2	E	0·3	S	0·6	E
2 „ 3	1·0	S	1·4	E	0·9	S	2·0	E	0·7	S	2·3	E	0·1	S	2·1	E	0·5	N	1·7	E	0·3	S	0·9	E	0·4	N	0·5	W	0·4	S	0·1	E	0·1	S	0·6	E
3 „ 4	0·7	S	2·1	E	1·2	S	2·6	E	0·9	S	2·8	E	0·5	S	3·1	E	0·4	N	2·2	E	0·0		0·9	E	0·1	N	0·7	W	0·4	S	0·1	E	0·3	N	0·7	E
4 „ 5	0·8	S	2·8	E	1·0	S	3·2	E	0·5	S	3·0	E	0·5	S	3·7	E	0·6	N	2·4	E	0·4	N	0·0		0·2	N	1·2	W	0·5	S	0·0		0·2	N	1·3	E
5 „ 6	0·7	S	3·1	E	1·2	S	3·6	E	0·6	S	3·9	E	1·1	S	4·0	E	0·1	S	3·3	E	0·4	N	0·7	E	0·7	N	0·2	W	0·4	S	0·3	E	0·2	N	1·3	E
6 „ 7	1·1	S	3·7	E	1·0	S	3·7	E	1·2	S	4·5	E	1·2	S	4·2	E	0·6	S	4·1	E	0·7	N	0·8	E	0·0		0·1	E	0·3	S	0·6	E	0·3	S	1·4	E
7 „ 8	1·2	S	3·8	E	1·4	S	4·1	E	1·4	S	5·1	E	1·6	S	4·3	E	0·6	S	3·8	E	0·5	N	0·6	E	0·2	N	0·1	W	0·4	S	0·8	E	0·4	S	1·6	E
8 „ 9	1·3	S	4·2	E	1·7	S	4·4	E	1·8	S	5·9	E	1·7	S	4·1	E	0·9	S	3·4	E	0·3	S	0·9	E	0·1	N	0·6	E	0·3	S	0·3	E	0·1	S	2·4	E
9 „ 10	2·1	S	4·8	E	2·2	S	4·4	E	1·5	S	4·1	E	1·7	S	2·2	E	0·7	S	1·6	E	0·4	S	0·7	E	0·1	S	0·3	E	0·2	S	0·0		0·5	S	2·4	E
10 „ 11	2·4	S	4·4	E	2·0	S	2·3	E	1·7	S	0·4	E	1·4	S	0·0		0·6	S	0·2	E	0·1	S	0·3	W	0·1	S	0·4	E	0·4	S	0·2	E	1·1	S	0·9	E
11 „ 12	1·9	S	1·6	E	1·2	S	0·4	W	0·2	S	1·7	W	1·0	S	2·1	W	0·8	S	1·0	W	0·4	N	1·4	W	0·0		0·9	E	0·2	S	0·3	W	0·6	S	0·2	W
12 „ 13	1·5	S	1·6	W	0·4	S	3·4	W	0·8	N	3·1	W	0·2	S	3·4	W	0·8	S	2·2	W	0·1	N	1·2	W	0·3	S	0·3	E	0·5	N	0·9	W	0·0		1·5	W
13 „ 14	0·5	S	3·3	W	0·0		4·5	W	1·1	N	4·1	W	0·2	N	4·5	W	0·2	S	3·4	W	0·0		1·7	W	0·0		0·4	E	0·5	N	0·1	W	0·1	S	3·0	W
14 „ 15	0·1	N	4·6	W	0·7	N	5·0	W	1·4	N	4·5	W	1·1	N	5·1	W	0·1	N	4·1	W	0·2	N	1·4	W	0·5	S	0·3	E	0·5	N	0·8	W	0·2	N	3·4	W
15 „ 16	0·9	N	5·9	W	2·1	N	4·8	W	1·7	N	4·7	W	1·4	N	4·9	W	0·2	N	4·3	W	0·9	N	1·4	W	0·2	S	0·0		1·0	N	1·3	W	0·2	N	3·9	W
16 „ 17	1·9	N	5·7	W	3·3	N	4·6	W	1·8	N	4·8	W	1·8	N	5·0	W	0·5	N	4·0	W	0·4	N	1·8	W	0·2	N	0·5	W	0·8	N	1·1	W	1·2	N	3·1	W
17 „ 18	3·2	N	4·9	W	3·3	N	4·1	W	1·7	N	4·2	W	1·6	N	4·4	W	0·5	N	3·1	W	0·5	N	0·8	W	0·4	N	0·0		0·9	N	0·6	W	1·2	N	1·6	W
18 „ 19	3·9	N	4·5	W	3·4	N	3·6	W	1·1	N	3·3	W	1·5	N	3·0	W	0·2	N	2·6	W	0·2	N	0·9	W	0·1	N	0·2	E	1·0	N	0·4	W	1·2	N	1·1	W
19 „ 20	4·7	N	3·4	W	2·8	N	2·9	W	0·5	N	2·2	W	1·2	N	1·3	W	0·3	N	0·9	W	0·4	N	0·6	W	0·2	N	0·0		0·2	N	0·3	E	0·5	N	0·0	
20 „ 21	2·8	N	2·5	W	1·5	N	1·7	W	0·2	N	1·1	W	0·6	N	0·4	W	0·3	N	0·3	W	0·1	N	0·5	E	0·1	S	0·1	W	0·0		0·8	E	0·6	N	0·5	E
21 „ 22	0·9	N	0·4	W	0·0		0·0		0·2	S	0·1	E	0·6	N	0·5	E	0·3	N	0·1	W	0·6	S	0·7	E	0·3	S	0·8	E	0·2	S	0·6	E	0·0		0·7	E
22 „ 23	0·4	S	0·6	E	0·7	S	0·4	E	0·1	S	0·4	E	0·4	N	1·4	E	0·5	N	0·4	E	0·5	S	1·1	E	0·6	S	0·6	E	0·3	S	0·7	E	0·2	S	1·0	E
23 „ 24	1·1	S	1·0	E	0·9	S	1·0	E	0·3	S	0·4	E	0·3	N	1·2	E	0·9	N	0·5	E	1·3	S	1·3	E	0·2	S	0·2	E	0·5	S	0·6	E	0·2	S	0·9	E

1920.	Month.																																	
	October.				November.				December.				Year.																					
Bombay Civil Time Hourly Intervals.	N. or S.		E. or W.		N. or S.		E. or W.		N. or S.		E. or W.		N. or S.		E. or W.																			
0 to 1	0·2	S	0·6	E	0·1	S	0·3	W	2·2	S	1·8	E	0·4	S	0·8	E																		
1 „ 2	0·7	E	1·1	S	1·0	E	1·7	S	2·0	E	0·3	S	1·0	E																				
2 „ 3	0·3	S	1·2	E	1·3	S	1·0	E	1·7	S	2·5	E	0·3	S	1·3	E																		
3 „ 4	0·3	N	0·7	E	0·0		1·7	E	1·5	S	1·8	E	1·6	S	3·5	E	0·3	S	1·7	E														
4 „ 5	0·2	N	1·3	E	0·4	S	2·3	E	1·7	S	1·9	E	1·5	S	3·4	E	0·3	S	1·9	E														
5 „ 6	0·2	N	1·3	E	0·6	S	2·8	E	1·7	S	2·5	E	1·5	S	4·3	E	0·4	S	2·5	E														
6 „ 7	0·3	S	1·4	E	1·2	S	3·0	E	1·4	S	2·4	E	1·9	S	4·2	E	0·7	S	2·7	E														
7 „ 8	0·4	S	1·6	E	1·6	S	3·9	E	1·6	S	2·3	E	1·7	S	4·8	E	0·7	S	2·9	E														
8 „ 9	0·1	S	2·4	E	1·8	S	4·4	E	1·6	S	2·2	E	1·7	S	5·1	E	0·8	S	3·2	E														
9 „ 10	0·2	S	2·4	E	1·2	S	3·6	E	1·2	S	1·8	E	1·8	S	4·0	E	0·8	S	2·5	E														
10 „ 11	1·1	S	0·9	E	0·6	S	2·5	E	1·1	S	1·3	E	1·7	S	3·0	E	0·7	S	1·3	E														
11 „ 12	0·6	S	0·2	W	0·8	S	0·9	E	0·6	S	0·3	W	1·3	S	0·3	E	0·5	S	0·3	W														
12 „ 13	0·8	S	1·2	W	0·2	S	1·2	W	1·1	S	2·0	W	0·3	S	1·8	W																		
13 „ 14			4·3	W	0·1	N	2·8	W																										
14 „ 15	0·8	N	5·7	W	0·4	N	3·4	W																										
15 „ 16	0·8	N	5·8	W	0·7	N	3·7	W																										
16 „ 17	0·8	N	5·2	W	2·1	N	2·5	W	2·8	N	5·2	W	1·0	N	3·6	W																		
17 „ 18	1·2	N	1·9	W	3·8	N	5·0	W	1·2	N	2·9	W																						
18 „ 19	1·2	N	1·5	W	4·4	N	4·5	W	1·2	N	2·3	W																						
19 „ 20	1·2	N	2·6	W	4·6	N	4·0	W	1·2	N	1·6	W																						
20 „ 21	0·8	N	0·4	W	3·2	N	2·3	W	0·8	N	0·6	W																						
21 „ 22	1·8	N	0·7	W	0·3	N	0·1	E																										
22 „ 23	0·4	N	0·3	E	0·0		0·5	E																										
23 „ 24	1·2	S	1·2	E	0·3	S	0·7	E																										

Aggregate and Mean Velocities and Relative Frequency of Different Winds, 1920.

Table VIe.—*Showing for the year 1920 the sums of the Velocities, and the Mean Velocities, in miles per hour, of the Winds which blew in each Month, from each of the sixteen Principal Directions and also the number of Hourly Observations which those sums comprise, the latter numbers indicating the Relative Frequency of the same Wind (as to direction) in the several Months and, of different Winds during the same month.*

1920.	N.			N. N. E.			N. E.			E. N. E.			E.			E. S. E.			S. E.			S. S. E.		
Month.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.
	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.
January ..	326	72	4·5	255	65	3·9	190	46	4·1	895	154	5·8	187	35	5·3	87	18	4·8	22	7	3·1	24	8	3·0
February ..	470	83	5·7	226	50	4·5	156	37	4·2	339	79	4·3	78	19	4·1	190	34	5·6	15	4	3·7	6	2	3·0
March ..	248	46	5·4	95	30	3·2	57	17	3·4	158	39	4·1	41	11	3·7	161	31	5·2	26	4	6·5	44	12	3·7
April ..	87	20	4·3	132	34	3·9	42	13	3·2	60	12	5·0	11	3	3·7	34	8	4·2	24	8	3·0	18	5	3·6
May ..	39	11	3·5	26	9	2·9	13	3	4·3	43	9	4·8	16	5	3·2	15	2	7·5	13	3	4·3	5	2	2·5
June ..	60	9	6·7	34	8	4·2	7	2	3·5	20	4	5·0	0	0	0·0	13	3	4·3	220	13	16·9	982	47	20·9
July ..	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	36	5	7·2	53	7	7·6
August ..	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	14	1	14·0	40	5	8·0	20	4	5·0
September ..	34	12	2·8	70	20	3·5	94	26	3·6	85	16	5·3	54	17	3·2	156	29	5·4	63	15	4·2	97	24	4·0
October ..	81	22	3·7	156	47	3·3	139	34	4·1	496	99	5·0	160	31	5·2	166	33	5·0	158	27	5·9	63	16	3·9
November ..	239	45	5·3	305	52	5·9	337	64	5·3	500	98	5·1	160	33	4·8	371	74	5·0	320	52	6·1	162	29	5·6
December ..	340	75	4·5	312	73	4·3	191	44	4·3	701	130	5·4	472	86	5·5	195	44	4·4	46	12	3·8	0	0	0·0
Year. ..	1,924	395	4·9	1,611	388	4·2	1,226	286	4·3	3,297	640	5·2	1,179	240	4·9	1,402	277	5·1	983	155	6·3	1,474	156	9·5

1920.	S.			S. S. W.			S. W.			W. S. W.			W.			W. N. W.			N. W.			N. N. W.			Number of Observations.	
Month.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of elocites.	Number of Observations.	Mean Velocity.	Calm.	Variable.
	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.		
January ..	0	0	0·0	2	1	2·0	5	5	1·0	8	2	4·0	19	4	4·7	313	55	5·7	989	115	8·6	1,124	154	7·3	3	0
February ..	24	3	8·0	30	10	3·0	6	2	3·0	14	3	4·7	74	17	4·4	531	94	5·6	826	99	8·3	1,372	159	8·6	1	0
March ..	0	0	0·0	36	13	2·8	8	2	4·0	201	54	3·7	303	70	4·3	1,067	166	6·4	1,505	175	8·6	433	72	6·0	2	0
April ..	31	8	3·9	81	22	3·7	30	11	2·7	68	18	3·8	317	45	7·0	1,809	240	7·5	1,110	179	6·2	510	92	5·5	2	0
May ..	3	1	3·0	31	6	5·2	204	54	3·8	459	93	4·9	1,264	201	6·3	1,695	253	6·7	429	74	5·8	114	18	6·3	0	0
June ..	529	33	16·0	662	57	11·6	702	89	7·9	1,589	202	7·9	1,874	170	11·0	391	56	7·0	208	20	10·4	37	7	5·3	0	0
July ..	54	7	7·7	88	12	7·3	2,120	237	8·9	3,631	359	10·1	1,103	106	10·4	58	10	5·8	0	0	0·0	4	1	4·0	0	0
August ..	0	0	0·0	146	30	4·9	180	36	5·0	2,336	290	8·1	2,557	295	9·0	419	78	5·4	0	0	0·0	11	5	2·2	0	0
September ..	16	5	3·2	48	12	4·0	164	39	4·2	495	101	4·9	1,205	150	8·0	1,109	167	6·6	458	59	7·8	160	28	5·7	0	0
October ..	68	22	3·1	20	6	3·3	13	4	3·2	80	21	3·8	51	13	3·9	880	172	5·1	609	85	7·2	581	110	5·3	2	0
November ..	140	33	4·2	21	5	4·2	92	18	5·1	36	5	7·2	74	12	6·2	187	34	5·5	309	46	6·7	571	93	6·1	3	0
December ..	0	0	0·0	0	0	0·0	0	0	0·0	3	1	3·0	8	2	4·0	257	57	4·5	721	97	7·4	1,114	123	9·1	0	0
Year ..	865	112	7·7	1,165	174	6·7	3,524	497	7·1	8,920	1,149	7·8	8,949	1,085	8·2	8,716	1,382	6·3	7,164	949	7·5	6,031	862	7·0	13	0

Velocity of Wind, 1920.

DINES' ANEMOGRAPH.

TABLE VIf.—*Mean Velocity of the Wind in miles per hour for each day of Bombay Civil Time, also the Mean Monthly Velocity and its variation from the mean of the year.*

1920. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1 ..	6·7	6·7	3·2	5·7	6·6	6·8	4·0	12·5	3·7	6·2	4·6	4·7
2 ..	8·7	3·7	3·6	4·7	3·7	5·6	6·3	9·6	4·0	7·2	5·2	6·1
3 ..	4·5	3·5	4·2	3·7	4·0	4·2	6·5	9·8	3·7	3·8	5·7	8·7
4 ..	4·7	4·5	5·4	5·7	4·1	3·5	6·4	9·7	5·8	3·6	5·8	8·5
5 ..	3·1	7·1	5·1	7·5	3·3	4·0	7·9	11·2	5·7	4·6	6·2	6·2
6 ..	5·6	7·0	5·4	7·8	4·6	9·7	8·0	10 5	6·0	4·3	6·4	6·0
7 ..	2·7	6·2	4·0	5·9	3·7	7·2	12·0	9·8	6·4	4·0	5·6	6·1
8 ..	4·7	4·2	3·7	5·7	4·1	16·5	13·5	7·6	5·6	4·0	3·8	5·5
9 ..	3·5	8·8	3·8	6·0	3·7	21·4	11·5	7·0	7·9	4·0	5·0	4·0
10 ..	3·3	9·4	6·9	4·7	4·2	20·7	9·7	8·0	9·8	5·7	5·4	4·6
11 ..	5·0	8·4	8·2	4·6	5·3	19·1	10·4	8·6	6·5	4·1	5·7	4·3
12 ..	8·0	8·7	8·3	5·4	5·0	14·6	10·8	8·7	7·6	4·6	5·2	5·2
13 ..	4·3	5·9	5·4	5·1	5·2	10·5	11·2	8·7	7·2	4·2	7·5	6·7
14 ..	4·2	5·0	5·2	6·1	5·4	7·9	10·4	9·5	5·7	5·2	6·2	6·2
15 ..	6·8	4·2	8·3	6·3	6·1	7·3	11·2	6·5	4·8	5·1	7·0	6·5
16 ..	7·4	5·5	9·2	5·5	6·2	6·5	10·2	4·1	3·9	4·7	6·5	5·6
17 ..	6·3	7·4	7·7	5·8	7·2	6·9	9·2	3·5	3·8	5·8	4·7	5·1
18 ..	4·8	7·0	5·0	6·8	6·7	10·1	8·5	3·7	4·2	4·1	4·0	4·6
19 ..	4·1	4·9	6·0	5·5	6·9	13·3	8·7	5·2	4·8	4·4	3·1	5·9
20 ..	5·0	5·9	8·2	5·6	4·8	13·2	9·2	7·0	5·7	4·0	4·3	6·2
21 ..	6·9	6·1	5·9	7·7	5·0	11·3	9·3	7·6	6·5	5·7	4·6	5·1
22 ..	7·8	5·0	6·8	4·4	5·4	10·8	9·4	7·1	6·0	4·2	4·5	5·0
23 ..	5·0	7·6	7·2	5·2	5·5	9·3	8·3	6·3	3·8	3·7	7·9	3·8
24 ..	6·0	7·4	5·7	6·0	7·4	7·9	9·5	5·3	4·5	3·9	7·8	6·5
25 ..	6·2	5·5	3·4	6·8	6·0	8·3	9·5	5·8	3·6	5·1	5·2	8·2
26 ..	7·2	4·1	4·5	6·3	7·0	10·0	10·1	5·5	3·9	5·5	6·3	6·5
27 ..	6·0	4·1	4·2	6·7	5·9	7·2	8·4	5·9	4·3	6·1	5·2	5·8
28 ..	4·6	5·6	3·6	5·7	6·4	7·0	7·9	6·4	4·7	7·2	5·0	5·5
29 ..	6·3	6·2	5·4	6·0	7·6	6·9	7·4	5·2	6·1	6·4	4·2	4·1
30 ..	8·0		5·4	5·4	7·7	4·8	7·7	4·2	7·7	4·8	4·3	4·1
31 ..	8·9		5·6		6·1		11·4	3·9		4·2		5·3
Monthly mean.	5·7	6·1	5·6	5·8	5·5	9·8	9·2	7·2	5·5	4·8	5·4	5·7
Annual Variation.	−0·7	−0·3	−0·8	−0·6	−0·9	+3·4	+2·8	+0·8	−0·9	−1·6	−1·0	−0·7

	Miles.
The mean velocity for June to August ..	8·7
The mean velocity for September to May ..	5·6
The mean velocity for the year	6·4

TABLE VIg.—*Showing the Mean diurnal inequality of the Velocity of the Wind in Miles per hour for each month of the year 1920 and for the whole year.*

1920. Bombay Civil Time Hourly Intervals.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Mi'es.	Miles.	Miles.	Miles.	Miles.	Miles.
0 to 1	−1·9	−1·8	−1·4	−1·8	−0·9	−0·6	+0·7	−0·3	−0·9	−0·5	−1·4	−2·1	−1·1
1 „ 2	−1·9	−1·9	−1·7	−2·0	−1·0	−0·5	+0·4	−0·1	−0·9	−0·3	−0·9	−2·0	−1·1
2 „ 3	−1·6	−1·5	−1·9	−2·3	−1·6	−0·7	+0·4	−0·1	−1·0	−0·6	−0·7	−1·4	−1·1
3 „ 4	−1·1	−0·8	−2·4	−2·4	−1·9	−0·4	+0·6	−0·1	0·8	−0·5	−0·1	−0·8	−0·9
4 „ 5	−0·9	−0·5	−2·0	−2·4	−2·1	−0·2	+1·0	+0·2	−0·9	−0·3	+0·2	−0·7	−0·7
5 „ 6	−0·7	−1·1	−1·4	−2·4	−2·8	−0·2	+0·1	−0·1	−0·5	−0·3	+0·8	−0·2	−0·7
6 „ 7	−0·9	−1·3	−1·6	−2·5	−2·6	−0·5	+0·2	+0·2	−0·9	−0·7	+0·9	−0·3	−0·8
7 „ 8	−0·6	−1·3	−1·7	−2·2	−2·0	−0·2	−0·3	0·0	−1·1	−0·5	+0·8	−0·1	−0·8
8 „ 9	−0·4	−1·2	−1·3	−1·8	−1·8	−0·2	−0·7	+0·3	−0·7	0·0	+0·6	+0·2	0·6
9 „ 10	−0·5	−1·4	−1·6	−1·3	−1·5	−0·3	−0·4	+0·3	−1·1	+0·1	+0·4	−0·2	−0·6
10 „ 11	−0·9	−2·0	−0·8	−0·7	−0·5	0·0	0·0	0·0	−1·0	−0·4	−0·4	−1·0	−0·6
11 „ 12	−1·0	−1·1	+0·6	+0·8	+0·6	−0·4	−0·7	+0·5	−0·5	−0·7	−1·2	−1·4	−0·4
12 „ 13	−0·4	+0·2	+1·9	+2·1	+1·6	+0·1	+0·1	+1·0	+0·5	−0·1	−0·9	−1·3	+0·4
13 „ 14	+0·3	+1·5	+2·9	+3·1	+2·8	+0·4	−0·5	+0·3	+1·4	+0·7	−0·3	−0·1	+1·0
14 „ 15	+1·0	+2·3	+3·4	+4·0	+3·4	+0·9	−0·4	+0·4	+2·0	+1·3	+0·5	+0·8	+1·6
15 „ 16	+2·0	+3·0	+3·6	+4·2	+3·5	+1·1	0·0	+1·3	+2·3	+1·9	+1·0	+1·7	+2·1
16 „ 17	+2·6	+3·5	+3·6	+4·4	+3·5	+1·6	+0·1	+0·7	+1·9	+1·8	+1·2	+2·3	+2·3
17 „ 18	+3·1	+3·6	+3·3	+3·7	+2·8	+0·7	−0·2	+0·5	+1·4	+1·4	+1·7	+2·9	+2·1
18 „ 19	+3·6	+3·1	+2·1	+2·3	+1·5	+0·4	−0·5	0·0	+1·0	+1·6	+2·1	+3·2	+1·7
19 „ 20	+3·6	+2·3	+0·7	+0·9	+0·3	−0·2	−0·2	−0·5	+0·2	+0·7	+1·6	+2·9	+1·0
20 „ 21	+1·6	+0·8	+0·1	+0·1	0·0	−0·4	−0·2	−1·1	0·0	0·0	+0·3	+1·3	+0·2
21 „ 22	−0·8	−1·1	−0·9	−0·8	−0·2	−0·5	−0·2	−0·8	−0·1	−1·2	−1·3	−0·4	−0·7
22 „ 23	−1·9	−1·8	−1·3	−1·4	−0·5	−0·7	+0·1	−1·0	−0·5	−1·2	−2·1	−1·3	−1·1
23 „ 24	−2·5	−1·9	−1·4	−1·2	−0·4	−0·4	0·0	−0·5	−0·7	−1·2	−2·1	−2·1	−1·2
Range.	6·1	5·6	6·0	6·9	6·3	2·3	1·7	2·4	3·4	3·1	4·2	5·3	3·5

Temperature of the Ground, 1920.

TABLE VII.—*Showing for each month the Mean Temperature of the Ground in the thermometer shed and its Annual Variation at the respective depths of 1, 9, 20, 60 and 132 inches below the surface.*

Depth.	1 Inch.		9 Inches.		20 Inches.		60 Inches.		132 Inches.	
Month.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean..
	°	°	°	°	°	°	°	°	°	°
January	78·9	—3·8	80·0	—3·5	83·0	—3·3	85·2	—1·4	84·2	—0·6
February	77·8	—4·9	78·7	—4·8	82·2	—4·1	84·3	—2·3	83·9	—0·9
March	81·9	—0·8	82·0	—1·5	84·0	—2·3	84·4	—2·2	84·2	—0·6
April	84·6	+1·9	84·7	+1·2	86·5	+0·2	85·4	—1·2	84·0	—0·8
May	87·1	+4·4	87·1	+3·6	88·9	+2·6	87·3	+0·7	84·5	—0·3
June	86·1	+3·4	87·3	+3 8	89·8	+3·5	88·2	+1·6	84·7	—0·1
July	82·9	+0·2	84·7	+1·2	88·2	+1·9	88·3	+1·7	85·1	+0·3
August	82·8	+0·1	84·2	+0·7	87·1	+0·8	87·9	+1·3	85·5	+0·7
September	83·6	+0·9	84·5	+1·0	87·2	+0·9	87·6	+1·0	85·5	+0·7
October	85·0	+2·3	85·4	+1·9	88·1	+1·8	87·4	+0·8	85·6	+0·8
November	82·7	+0·0	83·3	—0·2	87·1	+0·8	87·2	+0·6	85·3	+0·5
December	78·5	—4·2	80·0	—3·5	83·9	—2·4	86·1	—0·5	84·9	+0·1
Year..	82·7		83·5		86·3		86·6		84·8	

Maxima and Minima of different Meteorological Elements, 1920.

TABLE VIII.—*In which are collected the individual observations in each month of the year, which showed the greatest and the least values of the following elements, viz., Barometric Readings corrected for Temperature, Temperature of Air, Pressure of Vapour, and Additional Capacity of Air.*

1920.	Barometric Reading.			Temperature of air.			Pressure of Vapour.			Additional Capacity.		
Month.	Greatest	Least.	Range.	Greatest	Least.	Range.	Greatest	Least.	Range.	Greatest	Least.	Range.
	In.	In.	In.	°	°	°	In.	In.	In.	In.	In.	In.
January	30·073	29·830	·243	88·4	68·3	20·1	0·907	0·413	·0·494	0·870	0·031	·839
February	·076	·753	·323	88·5	62·6	25·9	·891	·289	·602	·768	·082	·686
March	·016	·682	·334	89·2	71·7	17·5	·973	·380	·593	·643	·080	·563
April	29·946	·661	·285	90·1	73·4	16·7	·996	·535	·461	·682	·103	·579
May	·933	·640	·293	90·9	79·3	11·6	·972	·758	·214	·570	·139	·431
June	·802	·398	·404	91·8	76·6	15·2	1·093	·750	·343	·551	·056	·495
July	·778	·506	·272	88·3	75·8	12·5	0·975	·765	·210	·409	·040	·369
August	·860	·663	·197	85·7	75·6	10·1	0·943	·754	·189	·363	·062	·301
September	·926	·666	·260	87·4	75·7	11·7	1·008	·746	·262	·382	·062	·320
October	30·000	·553	·447	94·4	74·4	20·0	1·092	·481	·611	1·082	·078	1·004
November	29·990	·720	·270	93·8	71·2	22·6	0·933	·418	·515	·148	·083	·065
December	30·012	·773	·239	89·1	64·9	24·2	·832	·360	·472	0·968	·063	0·905
Year. ..	30·076	29·398	·678	94·4	62·6	31·8	1·093	0·289	0·804	1·148	0·031	1·117

Relative Humidity of the Air, 1920.

TABLE IX*a*.—*Daily and monthly means of observations taken at 6, 10; 14, 16 and 22 hours daily.*

Complete Saturation = 1·000

1920.	Month.											
Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1 ..	0·646	0·752	0·708	0·779	0·753	0·734	**0·761**	**0·882**	0·794	0·809	0·722	0·673
2 ..	·589	0·713	·731	·725	·773	·748	·818	·869	·791	**·849**	·635	·689
3 ..	·698	·758	·769	·695	**·774**	·744	·900	·847	·765	·813	·651	·663
4 ..	·772	·741	·724	·697	·764	·730	·874	·828	·796	·844	·690	·601
5 ..	·881	·689	·671	·681	·734	·717	·879	·861	·767	·819	·648	·623
6 ..	**·940**	·633	·748	·657	·714	·729	·919	·820	·810	·821	·709	·665
7 ..	·889	**·511**	·712	·688	·702	·764	**·921**	·811	·808	·813	·729	·636
8 ..	·870	·640	·664	·722	·698	**·712**	·884	·810	**·761**	·816	·729	·634
9 ..	·840	·686	·672	**·645**	·700	·733	·852	·827	·767	·766	·761	·677
10 ..	·847	·631	·756	·742	·713	**·878**	·863	·794	·827	·748	·718	·699
11 ..	·845	·582	**·800**	·738	·694	·827	·833	·819	**·871**	·777	·697	·636
12 ..	·821	·587	·767	·721	·683	·823	·839	·801	·807	·773	·646	**·582**
13 ..	·714	·692	·747	·713	·710	·834	·837	·796	·815	·770	·545	·616
14 ..	·737	·764	·707	·752	·696	·841	·848	·798	·836	·752	·626	·619
15 ..	·769	**·774**	·647	·778	**·671**	·834	·865	·800	·824	·772	**·535**	·620
16 ..	·718	·749	·659	·760	·710	·810	·859	·843	·823	·776	·585	·647
17 ..	·704	·722	·670	·784	·717	·789	·846	·808	·799	·807	·642	·600
18 ..	·747	·649	·719	**·799**	·744	·817	·837	·771	·792	·799	·701	·667
19 ..	·761	·684	·708	·782	·734	·830	·813	·804	·815	·800	·714	·694
20 ..	·684	·613	·706	·756	·701	·848	·832	·768	·817	·738	·743	·698
21 ..	·679	·637	·698	·742	·688	·823	·825	·798	·822	·685	**·775**	·657
22 ..	**·587**	·670	·664	·714	·711	·818	·838	·774	·855	·649	·719	·647
23 ..	·635	·632	**·562**	·693	·729	·821	·834	·772	·858	·730	·546	**·737**
24 ..	·692	·631	·657	·749	·743	·813	·877	·762	·835	·716	·556	·712
25 ..	·683	·702	·671	·741	·710	·803	·869	**·756**	·827	·665	·669	·711
26 ..	·685	·711	·727	·771	·710	·843	·860	·823	·846	·637	·557	·679
27 ..	·680	·700	·707	·751	·678	·789	·837	·810	·837	·645	·595	·716
28 ..	·671	·644	·751	·770	·701	·774	·852	·822	·841	**·573**	·659	·695
29 ..	·660	·612	·770	·748	·728	·778	·839	·804	·826	·623	·683	·631
30 ..	·662		·788	·743	·729	·762	·817	·806	·807	·661	·712	·676
31 ..	·787		·777		·719		·868	·802		·671		·611
Monthly mean ..	0·738	0·675	0·712	0·735	0·717	0·792	**0·852**	0·809	0·815	0·746	**0·663**	0·658
Annual Variation ..	—·005	—·068	—·031	—·008	—·026	+·049	+·109	+·066	+·072	+·003	—·080	—·085

Annual mean .. .. = 0·743

Extent of Cloudy Sky, 1920.

TABLE IX*b*.—*Daily and monthly means of observations taken at 6, 10, 14, 16 and 22 hours daily, the whole sky being reckoned as 10·0.*

1920.	Month.											
Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1 ..	0·4	..	..	..	3·0	**1·8**	**2·8**	**10·0**	7·4	3·6	1·0	..
2 ..	3·6	..	0·6	..	1·8	2·4	8·6	8·0	6·0	1·8	..	..
3 ..	9·4	**2·6**	2·4	1·4	2·4	3·0	**10·0**	0·8	5·2	0·8	0·2	..
4 ..	9·2	0·6	1·6	0·8	3·4	4·2	10·0	7·0	5·8	4·0	0·8	..
5 ..	9·6	1·4	1·6	..	5·2	4·0	9·2	7·8	4·8	4·4	1·0	0·2
6 ..	**9·8**	..	..	..	2·8	5·8	10·0	8·4	6·6	7·8	..	0·2
7 ..	3·4	..	1·8	..	3·8	5·4	9·8	7·6	7·2	3·0	..	..
8 ..	2·4	..	3·8	..	3·4	6·6	9·6	6·6	7·0	3·2	..	..
9 ..	0·8	0·6	**4·6**	..	2·0	8·0	9·6	5·6	8·4	2·0	..	..
10 ..	1·0	..	1·2	..	4·4	**10·0**	9·6	5·0	**9·8**	3·6	..	..
11 ..	2·8	..	..	1·4	3·0	10·0	7·2	6·0	9·8	2·4	0·6	..
12 ..	1·4	..	2·2	..	2·8	10·0	10·0	5·4	5·4	3·2	..	..
13 ..	2·8	..	2·6	0·8	3·0	9·2	9·0	6·0	4·8	3·0	1·4	..
14 ..	0·4	..	1·6	2·2	2·4	9·4	9·4	7·4	5·0	3·6	0·4	..
15 ..	..	1·8	0·6	..	1·6	8·2	10·0	7·0	4·6	2·0	1·2	..
16 ..	..	..	..	1·4	5·4	5·8	10·0	8·4	**2·8**	5·4	..	..
17 ..	..	..	..	**5·2**	3·0	6·2	10·0	7·8	3·0	7·2	2·2	0·2
18 ..	..	..	..	3·4	2·0	8·2	8·2	5·6	5·2	6·8	2·0	**3·4**
19 ..	2·2	..	..	1·4	**0·4**	8·4	10·0	7·2	6·4	**9·0**	3·6	..
20 ..	..	..	..	0·8	1·0	10·0	8·2	6·4	5·8	6·0	4·6	..
21 ..	0·6	..	2·2	..	1·8	9·8	9·4	7·2	5·6	3·4	..	..
22 ..	..	0·4	..	0·6	2·0	9·6	9·8	6·0	6·8	5·2	0·2	0·4
23 ..	2·0	..	..	1·0	2·2	9·2	9·8	5·6	5·2	5·4	4·0	2·2
24 ..	..	0·4	..	0·6	1·6	7·8	10·0	6·2	5·0	1·8	**8·8**	1·2
25 ..	..	0·2	..	..	1·8	8·6	10·0	**4·8**	4·4	0·4	7·4	..
26 ..	..	..	..	2·0	2·2	8·6	10·0	5·6	6·0	0·6	2·2	0·4
27 ..	..	..	..	4·8	1·4	6·0	9·0	8·8	5·0	1·4	0·4	1·2
28 ..	1·4	..	..	1·8	2·6	3·8	9·4	8·4	8·4	1·8	1·6	..
29 ..	..	..	0·2	2·0	1·6	2·8	9·6	7·6	5·4	2·2	3·6	0·8
30 ..	..		1·0	1·8	2·0	3·0	9·0	5·6	3·8	3·2	3·2	..
31 ..	..			..	4·6	..	10·0	6·8	..	1·2	..	..
Monthly mean ..	2·0	0·3	0·9	1·1	2·6	6·9	9·3	6·9	5·9	3·5	1·7	0·3
Annual Variation ..	—1·4	—3·1	—2·5	—2·3	—0·8	+3·5	+5·9	+3·5	+2·5	+0·1	—1·7	—3·1

For the days which have no entry, 0·0 is to be understood.

Mean of the months from January to April, November and December .. 1·0

Mean of the months from May to October .. .. .. 5·8

Mean for the year .. .. 3·4

Meteorological Data, 1920.

TABLE X.—*Five-day Means.*

Number of Five-day Period.	Barometric Pressure.	Temperature of the Air.	Pressure of Vapour.	Additional Capacity of the Air.	* Rainfall.	North or South Component of Wind.	East or West Component of Wind.	Number of Five-day Period.	Barometric Pressure.	Temperature of the Air.	Pressure of Vapour.	Additional Capacity of the Air.	* Rainfall.	North or South Component of Wind.	East or West Component of Wind.
	In.	°	In.	In.	In.	Miles.	Miles.		In.	°	In.	In.	In.	Miles.	Miles.
1 ..	29·920	76·8	0·675	0·251	0·07	3·5 N	1·5 E	38 ..	29·604	79·8	0·904	0·113	12·33	3·0 S	10·1 W
2 ..	·942	77·5	·830	·116	0·92	1·2 N	1·5 E	39 ..	·638	81·5	·907	·170	2·76	4·5 S	10·0 W
3 ..	·953	78·2	·757	·213	..	4·1 N	0·8 W	40 ..	·673	81·2	·895	·170	0·86	4·9 S	8·2 W
4 ..	·916	75·9	·651	·248	..	4·0 N	1·6 W	41 ..	·598	81·2	·896	·172	1·02	5·3 S	7·5 W
5 ..	·941	75·8	·602	·295	..	4·0 N	0·7 E	42 ..	·671	80·6	·895	·150	1·18	5·1 S	7·2 W
6 ..	·912	75·9	·602	·299	..	5·0 N	1·4 W	43 ..	·729	79·6	·866	·145	2·29	3·4 S	9·9 W
7 ..	·902	74·1	·640	·204	0·04	2·9 N	0·9 W	44 ..	·784	80·9	·875	·182	0·92	1·8 S	10·1 W
8 ..	**·971**	**71·4**	**·501**	·275	0·29	3·9 N	1·4 W	45 ..	·773	81·1	·862	·199	0·32	2·5 S	8·2 W
9 ..	·964	72·3	·526	·273	..	**6·3** *N*	2·1 W	46 ..	·768	80·8	·846	·206	0·11	0·1 S	4·9 W
10 ..	·929	76·0	·649	·254	..	3·8 N	1·4 W	47 ..	·749	81·3	·843	·227	0·70	0·2 N	7·3 W
11 ..	·949	79·2	·636	·368	..	5·0 N	1·3 W	48 ..	·735	81·1	·840	·222	0·88	0·3 S	6·1 W
12 ..	·894	79·5	·698	·319	..	2·7 N	1·5 W	49 ..	·768	81·2	·863	·205	0·27	3·0 S	3·0 W
13 ..	·891	77·8	·701	·254	..	0·6 N	1·4 W	50 ..	·742	81·1	·846	·215	0·74	1·2 S	5·5 W
14 ..	·890	78·5	·712	·268	..	2·5 N	3·1 W	51 ..	·772	80·8	·851	·201	1·92	0·5 N	8·3 W
15 ..	·878	78·3	·684	·288	..	5·1 N	4·1 W	52 ..	·816	80·9	·872	·183	0·71	1·7 N	5·0 W
16 ..	·848	80·2	·746	·290	..	4·1 N	4·1 W	53 ..	·845	81·3	·875	·195	0·44	2·6 N	2·2 W
17 ..	·794	81·4	·723	·354	..	3·7 N	2·7 W	54 ..	·771	81·8	·927	·163	0·16	0·8 S	0·9 E
18 ..	·773	81·5	·828	·251	..	1·1 N	3·2 W	55 ..	·750	83·0	·944	·188	..	4·9 N	3·3 W
19 ..	·835	80·4	·756	·286	..	3·2 N	3·6 W	56 ..	·723	84·0	**·969**	·199	0·33	0·8 S	0·0
20 ..	·817	81·2	·744	·326	..	3·0 N	3·3 W	57 ..	·848	83·5	·903	·245	..	1·8 N	3·2 W
21 ..	·844	80·3	·782	·257	..	3·3 N	3·8 W	58 ..	·877	82·2	·864	·238	..	1·6 N	2·1 W
22 ..	·800	82·6	·879	·239	..	2·4 N	4·4 W	59 ..	·875	82·9	·836	·297	0·01	2·5 N	0·0
23 ..	·758	84·4	·872	·312	..	2·2 N	4·0 W	60 ..	·890	83·1	·806	·337	..	2·2 N	1·0 E
24 ..	·769	84·1	·898	·375	..	2·6 N	4·8 W	61 ..	·830	81·1	·713	·355	..	3·0 N	1·2 E
25 ..	·721	84·0	·896	·271	..	0·5 N	4·3 W	62 ..	·838	81·2	·731	·344	..	3·3 N	1·3 E
26 ..	·794	84·6	·853	·336	..	0·5 S	4·5 W	63 ..	·860	80·2	·768	·269	..	2·1 N	1·3 E
27 ..	·824	84·9	·846	·360	..	0·9 S	5·0 W	64 ..	·905	80·6	·643	**·414**	..	1·6 S	**3·9** *E*
28 ..	·835	84·2	·862	·317	..	2·1 N	5·3 W	65 ..	·820	80·6	·775	·277	..	0·5 S	0·1 E
29 ..	·782	85·2	·883	·331	..	1·5 N	5·5 W	66 ..	·807	81·6	·686	·402	..	3·8 N	1·6 W
30 ..	·773	85·2	·870	·343	..	3·4 N	5·3 W	67 ..	·838	77·8	·663	·296	..	0·9 N	1·9 E
31 ..	·732	**86·0**	·924	·323	..	1·9 N	3·9 W	68 ..	·906	76·9	·621	·308	..	5·2 N	0·9 W
32 ..	·568	85·3	·903	·317	0·38	5·7 S	0·5 E	69 ..	·877	76·4	·621	·299	..	2·8 N	1·0 E
33 ..	**·532**	81·7	·936	·168	6·54	**12·5** *S*	2·9 W	70 ..	·906	76·9	·590	·339	..	2·6 N	1·9 E
34 ..	·669	83·8	·957	·203	0·31	1·3 S	**9·5** W	71 ..	·905	75·7	·611	·288	..	2·9 N	0·9 E
35 ..	·605	83·4	·947	·198	0·33	2·0 S	**10·7** W	72 ..	·874	73·9	·601	·242	..	3·7 N	0·0
36 ..	·722	83·5	·924	·224	0·60	3·5 S	1·0 W	73 ..	·915	75·0	·593	·285	..	3·7 N	0·3 E
37 ..	·698	82·2	·899	·203	3·52	2·0 S	4·2 W								

* Five-day sums, not means.

List of principal disturbances recorded by the seismographs.

TABLE I.

1916.

$\phi = 18° 53' 36''$; $\lambda = 72° 48' 56''$; $h = 11$ *Metres. Subsoil-Trap.*

Apparatus—Milne's Horizontal Pendulum (E.-W.)

	V	To	ϵ	$\frac{v}{To^2}$
AE ..	9	21	..	..

Date.	Phase.	Time G. M. T.	Period (Sec.)	Amplitude (μ). AN	AE	AZ	Remarks.
		H. m. s.					
1916 January 1 ..	P	13 33 10	..	..	..	..	Sensibility to tilt : 1·0 mm. of amplitude on the trace = 0″·29.
,, ,, 1 ..	M	14 14 3	..	..	400	..	
,, ,, 1 ..	F	17 43 16	..	..	..	..	
,, ,, 13 ..	P	6 27 31	..	..	..	..	
,, ,, 13 ..	M	6 58 47	..	..	67	..	
,, ,, 13 ..	F	8 22 47	..	..	..	..	
,, ,, 13 ..	P	8 31 39	..	..	..	..	
,, ,, 13 ..	M	8 54 2	..	..	389	..	
,, ,, 13 ..	F	12 4 54	..	..	..	..	
,, ,, 24 ..	P	7 3 47	..	..	..	..	
,, ,, 24 ..	M	7 20 35	..	..	322	..	
,, ,, 24 ..	F	8 43 59	..	..	..	..	
,, ,, 26 ..	P	7. 48 12	..	..	..	..	
,, ,, 26 ..	M	8 11 50	..	..	56	..	
,, ,, 26 ..	F	8 28 30	..	..	..	..	
,, ,, 26 ..	P	13 1 6	..	..	..	..	
,, ,, 26 ..	M	13 34 45	..	..	56	..	
,, ,, 26 ..	F	13 59 20	..	..	..	..	
,, ,, 31 ..	P	18 41 37	..	..	..	..	
,, ,, 31 ..	M	19 24 9	..	..	44	..	
,, ,, 31 ..	F	19 58 29	..	..	..	..	
,, February 1 ..	P	7 45 59	..	..	..	..	
,, ,, 1 ..	M	8 14 35	..	..	444	..	
,, ,, 1 ..	F	9 24 35	..	..	..	..	
,, ,, 6 ..	P	....	..	..	..	..	Beginning mixed in tremors.
,, ,, 6 ..	M	22 43 53	..	..	289	..	
,, ,, 6 ..	F	....	..	..	..	..	End mixed in tremors.
,, ,, 14 ..	P	....	..	..	..	..	Beginning mixed in tremors.
,, ,, 14 ..	M	10 39 48	..	..	44	..	
,, ,, 14 ..	F	..	..	..	..	..	End mixed in tremors.
,, ,, 14 ..	P	17 54 54	..	..	..	..	
,, ,, 14 ..	M	18 0 48	..	..	67	..	
,, ,, 14 ..	F	18 13 34	..	..	..	..	
,, ,, 15 ..	P	12 25 2	..	..	..	..	
,, ,, 15 ..	M	12 37 2	..	..	56	..	
,, ,, 15 ..	F	12 59 49	..	..	..	..	
,, ,, 20 ..	P	18 11 14	..	..	..	..	
,, ,, 20 ..	M	18 46 52	..	..	222	..	
,, ,, 20 ..	F	19 24 29	..	..	..	..	
,, ,, 21 ..	P	....	..	..	..	..	Beginning mixed in tremors.
,, ,, 21 ..	M	14 13 35	..	..	22	..	
,, ,, 21 ..	F	....	..	..	..	..	End mixed in tremors.

TABLE I—*contd.*

Date.	Phase.	Time G. M. T.	Period (Sec.)	Amplitude. (μ).			Remarks.
				AN	AE	AZ	
		H. m. s.					
1916 February 27 ..	P	20 44 15	..	..	..	..	
,, ,, 27 ..	M	21 59 5	..	..	144	..	
,, ,, 27 ..	F	....	..	..	..	..	End mixed in tremors.
,, April 5 ..	P	21 16 25	..	..	..	..	Sensibility to tilt: 1·0 mm. of amplitude on trace = 0·30′.
,, ,, 5 ..	M	21 26 59	..	..	67	..	
,, ,, 5 ..	F	21 39 11	..	..	..	..	
,, ,, 7 ..	P	....	..	..	..	..	P as shown by Tromograph is at $9^h\ 35^m\ 33^s$.
,, ,, 7 ..	S	9 42 30	..	..	..	..	
,, ,, 7 ..	M	9 53 11	..	..	344	..	
,, ,, 7 ..	F	11 38 58	..	..	..	..	
,, ,, 15 ..	P	12 39 42	..	..	..	..	
,, ,, 15 ..	M	12 54 56	..	..	167	..	
,, ,, 15 ..	F	13 45 45	..	..	..	..	
,, ,, 15 ..	P	15 9 58	..	..	..	..	
,, ,, 15 ..	M	15 33 33	..	..	33	..	
,, ,, 15 ..	F	15 44 2	..	..	..	..	
,, ,, 18 ..	P	....	..	..	..	..	P as shown by Tromograph is at $4^h\ 14^m\ 32^s$.
,, ,, 18 ..	S	4 26 59	..	..	..	..	
,, ,, 18 ..	M	4 54 43	..	..	67	..	
,, ,, 18 ..	F	5 32 50	..	..	..	..	
,, ,, 21 ..	P	11 41 42	..	..	..	..	
,, ,, 21 ..	M	12 14 42	..	..	167	..	
,, ,, 21 ..	F	....	..	..	..	..	End mixed in tremors.
,, ,, 24 ..	P	8 24 33	..	..	..	..	
,, ,, 24 ..	M	9 43 8	..	..	111	..	
,, ,, 24 ..	F	11 21 13	..	..	..	..	
,, ,, 26 ..	P	....	..	..	..	..	Beginning mixed tremors.
,, ,, 26 ..	M	3 45 25	..	..	56	..	
,, ,, 26 ..	F	4 32 34	..	..	..	..	
,, May 9 ..	P	14 39 42	..	..	..	..	
,, ,, 9 ..	M	14 47 15	..	..	200	..	
,, ,, 9 ..	F	....	..	..	..	..	End lost in shifting time.
,, ,, 29 ..	P	11 41 57	..	..	..	..	
,, ,, 29 ..	M	11 48 25	..	..	33	..	
,, ,, 29 ..	F	11 58 11	..	..	..	..	Sensibility to tilt: 1·0 mm. of amplitude on trace = 0·32″.
,, June 15 ..	P	11 33 33	..	..	..	..	
,, ,, 15 ..	M	11 49 21	..	..	111	..	
,, ,, 15 ..	F	12 15 15	..	..	..	..	
,, ,, 21 ..	P	....	..	..	..	..	Beginning mixed in tremors.
,, ,, 21 ..	M	20 5 21	..	..	67	..	
,, ,, 21 ..	F	....	..	..	..	..	End mixed in tremors.
,, ,, 21 ..	P	....	..	..	..	..	Beginning mixed in tremors.
,, ,, 21 ..	M	22 49 47	..	..	44	..	
,, ,, 21 ..	F	....	..	..	..	..	End mixed in tremors.
,, ,, 24 ..	P	....	..	..	..	..	Beginning mixed in tremors.
,, ,, 24 ..	M	4 12 19	..	..	56	..	
,, ,, 24 ..	F	....	..	..	..	..	End mixed in tremors.
,, ,, 30 ..	P	....	..	..	..	..	Beginning mixed in tremors.
,, ,, 30 ..	M	4 31 26	..	..	56	..	
,, ,, 30 ..	F	5 15 39	..	..	..	..	
,, August 3 ..	P	1 42 21	..	..	..	..	
,, ,, 3 ..	M	2 13 49	..	..	66	..	
,, ,, 3 ..	F	3 10 41	..	..	..	..	

TABLE I—*contd.*

Date.	Phase.	Time. G. M. T.	Period (Sec.).	Amplitude (μ).			Remarks.
				AN	AE	AZ	
		H. m. s.					
1916 August 8 ..	P	4 59 59	..	..	..	..	
,, ,, 8 ..	M	5 3 54	..	..	33	..	
,, ,, 8 ..	F	5 14 41	..	..	..	..	
,, ,, 25 ..	P	10 7 6	..	..	..	..	
,, ,, 25 ..	M	11 8 6	..	..	167	..	
,, ,, 25 ..	F	11 45 18	..	..	..	..	
,, ,, 28 ..	P	6 42 47	..	..	..	..	
,, ,, 28 ..	M	6 47 55	..	..	1,789	..	
,, ,, 28 ..	F	8 25 38	..	..	..	..	
,, September 11 ..	S	6 44 59	..	..	..	..	P as shown by Tromograph is at $6^h\ 38^m\ 6^s$.
,, ,, 11 ..	M_1	6 45 29	..	..	100	..	
,, ,, 11 ..	M_2	7 1 25	..	..	78	..	
,, ,, 11 ..	F	7 32 11	..	..	..	..	
,, ,, 15 ..	P	7 11 32	..	..	..	..	
,, ,, 15 ..	S	7 20 7	..	..	..	..	
,, ,, 15 ..	M	7 38 57	..	..	56	..	
,, ,, 15 ..	F	8 1 50	..	..	..	..	
,, ,, 23 ..	P	7 2 14	..	..	..	..	
,, ,, 23 ..	M	7 12 38	..	..	22	..	
,, ,, 23 ..	F	7 37 38	..	..	..	..	
,, October 3 ..	P	1 46 28	..	..	..	..	
,, ,, 3 ..	M	2 56 40	..	..	122	..	
,, ,, 3 ..	F	3 41 24	..	..	..	..	
,, ,, 20 ..	P	17 35 24	..	..	..	..	
,, ,, 20 ..	M	18 14 44	..	..	22	..	
,, ,, 20 ..	F	18 39 56	..	..	..	..	
,, ,, 21 ..	P	19 30 41	..	..	..	..	Beginning uncertain.
,, ,, 21 ..	M	19 38 39	..	..	56	..	
,, ,, 21 ..	F	....	..	..	..	..	End mixed in tremors.
,, ,, 23 ..	P	10 42 48	..	..	..	..	
,, ,, 23 ..	M	10 47 50	..	..	22	..	
,, ,, 23 ..	F	10 53 17	..	..	..	..	
,, ,, 31 ..	P	15 42 56	..	..	..	..	
,, ,, 31 ..	M	16 17 24	..	..	689	..	
,, ,, 31 ..	F	17 11 40	..	..	..	..	
,, November 3 ..	P	22 30 50	..	..	..	..	
,, ,, 3 ..	M	22 33 45	..	..	44	..	
,, ,, 3 ..	F	22 42 26	..	..	..	..	
,, ,, 11 ..	P	14 18 43	..	..	..	..	Sensibility to tilt: 1·0 mm. of amplitude on trace = 0·32″.
,, ,, 11 ..	M	14 27 28	..	..	56	..	
,, ,, 11 ..	F	14 34 47	..	..	..	..	
,, ,, 11 ..	P	16 9 29	..	..	..	..	
,, ,, 11 ..	M	16 14 32	..	..	33	..	
,, ,, 11 ..	F	16 18 34	..	..	..	..	
,, ,, 14 ..	P	22 45 49	..	..	..	..	
,, ,, 14 ..	M	22 59 43	..	..	22	..	
,, ,, 14 ..	F	23 10 43	..	..	..	..	
,, ,, 21 ..	P	7 32 56	..	..	..	..	
,, ,, 21 ..	M	8 17 20	..	..	33	..	
,, ,, 21 ..	F	8 31 14	..	..	..	..	
,, ,, 24 ..	P	4 34 25	..	..	..	..	
,, ,, 24 ..	M	4 42 47	..	..	22	..	
,, ,, 24 ..	F	4 54 53	..	..	..	..	
,, December 14 ..	P	17 36 30	..	..	..	..	
,, ,, 14 ..	M	17 44 12	..	..	22	..	
,, ,, 14 ..	F	17 55 42	..	..	..	..	

TABLE I—*concld.*

Date.	Phase.	Time G. M. T.	Period (Sec.)	Amplitude (μ).			Remarks.
				AN	AE	AZ	
		H. m. s.					
1916 December 23 ..	P	9 57 52	..	..	..	..	
,, ,, 23 ..	M	10 51 21	..	..	78	..	
,, ,, 23 ..	F	11 28 21	..	..	..	..	
,, ,, 24 ..	P	8 0 12	..	..	..	..	
,, ,, 24 ..	M	8 1 24	..	..	67	..	
,, ,, 24 ..	F	8 5 1	..	..	..	..	

One disturbance at about 2^h on 10th February, another one at about 0^h on 26th March and a third one at about 14^h on 21st April are masked by tremors.

One disturbance at about $19\frac{3}{4}^h$ on 14th October, another at about $3\frac{1}{2}^h$ on 26th October, a third one at about $23\frac{1}{2}^h$ on 25th December and a fourth one at about $20\frac{1}{4}^h$ on 26th December 1916, have been masked by tremors,

Thickening of line was noted on the following occasions :—

January.—$7^d\,13^h\,43^m$ to 47^m ; $9^d\,11^h\,44^m$; $10^d\,19^h\,6^m$ to 10^m ; $17^d\,13^h\,23^m$.

February.—$7^d\,9^h\,52^m$; $11^d\,19^h\,37^m$; $14^d\,8^h\,50^m$ to 53^m ; $24^d\,10^h\,19^m$; $24^d\,12^h\,21^m$; $28^d\,10^h\,54^m$.

March.—$11^d\,11^h\,13^m$ to 17^m ; $23^d\,14^h\,17^m$; $24^d\,11^h\,46^m$.

April.—$3^d\,11^h\,6^m$; $14^d\,17^h\,55^m$ to 59^m ; $15^d\,9^h\,35^m$; $15^d\,9^h\,40^m$; $15^d\,9^h\,42^m$; $15^d\,9^h\,44^m$; $22^d\,7^h\,12^m$; $24^d\,5^h\,42^m$ to 46^m ; $28^d\,3^h\,29^m$.

May.—$1^d\,6^h\,39^m$; $4^d\,9^h\,9^m$ to 12^m ; $8^d\,8^h\,21^m$; $9^d\,7^h\,32^m$; $17^d\,14^h\,48^m$; $17^d\,14^h\,58^m$; $18^d\,6^h\,18^m$ to 26^m ; $29^d\,7^h\,31^m$.

June.—$1^d\,11^h\,43^m$; $22^d\,1^h\,12^m$ to 15^m ; $22^d\,13^h\,21^m$.

July.—$6^d\,6^h\,50^m$; $16^d\,18^h\,53^m$ to 59^m; $17^d\,13^h\,20^m$; $20^d\,16^h\,35^m$.

August.—$7^d\,1^h\,41^m$; $13^d\,1^h\,1^m$; $14^d\,5^h\,4^m$; $17^d\,3^h\,14^m$ to 17^m ; $23^d\,19^h\,57^m$; $25^d\,19^h\,17^m$; $26^d\,12^h\,11^m$ to 15^m ; $27^d\,6^h\,2^m$ to 5^m ; $28^d\,6^h\,39^m$.

September.—$3^d\,7^h\,36^m$; $6^d\,4^h\,44^m$; $6^d\,5^h\,59^m$; $13^d\,5^h\,17^m$ to 19^m ; $29^d\,20^h\,21^m$ to 24^m ; $29^d\,20^h\,25^m$ to 27^m.

October.—$1^d\,18^h\,22^m$; $9^d\,14^h\,50^m$; $11^d\,17^h\,37^m$; $11^d\,18^h\,35^m$; $18^d\,10^h\,38^m$; $22^d\,12^h\,24^m$.

November.—$3^d\,10^h\,5^m$; $8^d\,6^h\,8^m$; $8^d\,6^h\,25^m$; $13^d\,12^h\,48^m$ to 54^m ; $18^d\,12^h\,46^m$ to 54^m ; $21^d\,7^h\,14^m$.

December.—$3^d\,8^h\,44^m$ to 47^m ; $5^d\,21^h\,48^m$ to 52^m ; $22^d\,19^h\,42^m$; $24^d\,7^h\,31^m$.

TABLE II.

1917.

φ = 18° 53′ 36″ ; λ = 72° 48′ 56″ ; h = 11 Metres. Subsoil-Trap.

Apparatus—Milne's Horizontal Pendulum (E.-W.)

	V	To	ϵ	$\frac{r}{To^2}$
AE. ..	9	21 19	(from 1st January to 22nd June). (from 23rd June to 31st December).	

Date.	Phase.	Time G. M. T.	Period (Sec.)	Amplitude (μ).			Remarks.
				AN.	AE.	AZ.	
		H. m. s.					
1917 January 4 ..	P	17 4 56	..	..	..	..	Sensibility to tilt ; 1·0 m.m. of amplitude on the trace = 0″·32.
,, ,, 4 ..	M	17 21 30	..	..	44	..	
,, ,, 4 ..	F	17 34 30	..	..	..	..	
,, ,, 20 ..	P	Mixed in tremors.	..	..	..	..	P as shown by the float record is at $20^d\,23^h\,20^m\,55^s$.
,, ,, 20 ..	S	23 27 20	..	..	..	..	
,, ,, 20 ..	M	23 44 54	..	..	111	..	
,, ,, 20 ..	F	....	..	..	..	..	End mixed in the beginning of another disturbance which is masked by tremors.
,, ,, 26 ..	P	....	..	..	..	..	Beginning uncertain.
,, ,, 26 ..	M	5 56 49	..	..	22	..	
,, ,, 26 ..	F	6 12 13	..	..	..	..	
,, ,, 30 ..	P	Mixed in tremors.	..	..	..	..	P as shown by the float record is at $30^d\,2^h\,57^m\,24^s$.
,, ,, 30 ..	S	3 6 50	..	..	..	..	
,, ,, 30 ..	M	Traces overlap.	..	..	..	..	
,, ,, 30 ..	F	6 52 0	..	..	..	..	
,, ,, 31 ..	P	4 9 10	..	..	..	..	
,, ,, 31 ..	M	4 35 59	..	..	167	..	
,, ,, 31 ..	F	5 7 19	..	..	..	..	
,, February 15 ..	P	Mixed in tremors.	..	..	..	..	P as shown by the float record is at $15^d\,1^h\,8^m\,8^s$.
,, ,, 15 ..	M	2 8 31	..	..	100	..	
,, ,, 15 ..	F	....	..	..	..	..	End mixed in tremors.
,, ,, 20 ..	P	Mixed in tremors.	..	..	..	..	P as shown by the float record is at $20^d\,19^h\,49^m\,46^s$.
,, ,, 20 ..	M	21 1 56	..	..	89	..	
,, ,, 20 ..	F	....	..	..	..	..	End mixed in tremors.
,, ,, 21 ..	P	Not well marked.	..	..	..	..	P as shown by the float record is at $21^d\,10^h\,1^m\,11^s$.
,, ,, 21 ..	M	11 1 29	..	..	56	..	
,, ,, 21 ..	F	11 13 43	..	..	..	..	
,, ,, 22 ..	P	9 47 55	..	..	..	..	P uncertain.
,, ,, 22 ..	M	10 31 49	..	..	67	..	
,, ,, 22 ..	F	10 47 11	..	..	..	..	
,, ,, 25 ..	P	Not well marked.	..	..	..	..	P as shown by the float record is at $25^d\,5^h\,29^m\,21^s$.
,, ,, 25 ..	S	5 36 42	..	..	..	..	S shown by the float record.
,, ,, 25 ..	M	5 52 47	..	..	33	..	
,, ,, 25 ..	F	....	..	..	..	..	End mixed in the beginning of the following disturbance.

TABLE II—*contd.*

Date.	Phase.	Time G M. T.	Period (Sec.)	Amplitude (μ).			Remarks.
				AN.	AE.	AZ.	
		H. m. s.					
1917 February 25 ..	P	Mixed in the end of the preceding disturbance.	..	..	..	..	P as shown by the float record is at $25^d\ 5^h\ 55^m\ 11^s$.
„ „ 25 ..	S	6 2 34	..	..	..	..	S as shown by the float record.
„ „ 25 ..	M	6 18 35	..	..	44	..	
„ „ 25 ..	F	6 38 47	..	..	..	..	
„ March 6 ..	P	....	..	..	..	..	Beginning doubtful.
„ „ 6 ..	M	4 34 28	..	..	22	..	
„ „ 6 ..	F	4 42 18	..	..	..	..	
„ „ 15 ..	P	....	..	..	..	..	P as shown by the float record is at $15^d\ 0^h\ 24^m\ 44^s$.
„ „ 15 ..	M	0 55 5	..	..	100	..	
„ „ 15 ..	F	....	..	..	..	..	End mixed in tremors.
„ April 3 ..	P	12 50 7	..	..	..	..	
„ „ 3 ..	M	12 59 7	..	..	56	..	
„ „ 3 ..	F	13 17 38	..	..	..	..	
„ „ 12 ..	P	3 0 14	..	..	..	..	
„ „ 12 ..	M	3 10 7	..	..	189	..	
„ „ 12 ..	F	3 36 43	..	..	..	..	
„ „ 16 ..	P	19 1 25	..	..	..	..	
„ „ 16 ..	M	19 4 25	..	..	56	..	
„ „ 16 ..	F	19 13 58	..	..	..	..	
„ „ 21	P	Mixed in tremors.	..	..	..	..	P as shown by the float record is at $21^d\ 0^h\ 53^m\ 41^s$.
„ „ 21 ..	M	0 56 44	..	..	189	..	
„ „ 21 ..	F	....	..	..	..	..	End mixed in tremors.
„ „ 29 ..	P	12 13 12	..	..	..	..	
„ „ 29 ..	M	12 23 53	..	..	33	..	
„ „ 29 ..	F	12 38 0	..	..	..	..	
„ May 1 ..	P	18 42 8	..	..	..	..	
„ „ 1 ..	M	19 35 36	..	..	1,600	..	
„ „ 1 ..	F	....	..	..	..	..	End mixed in tremors.
„ „ 2 ..	P	Mixed in tremors.	..	..	..	..	
„ „ 2 ..	M	2 31 49	..	..	44	..	
„ „ 2 ..	F	2 41 49	..	..	..	..	
„ „ 4 ..	P	Mixed in tremors.	..	..	..	..	
„ „ 4 ..	M	1 54 7	..	..	122	..	
„ „ 4 ..	F	2 18 45	..	..	..	..	
„ „ 9 ..	P	....	..	..	..	..	P as shown by the float record is at $9^d\ 16^h\ 6^m\ 13^s$.
„ „ 9 ..	S	16 14 45	..	..	..	..	
„ „ 9 ..	M	16 43 11	..	..	111	..	
„ „ 9 ..	F	....	..	..	..	..	End mixed in tremors.
„ „ 31 ..	P	9 7 27	..	..	..	..	
„ „ 31 ..	M	9 51 27	..	..	722	..	
„ „ 31 ..	F	11 41 58	..	..	..	..	
„ June 4 ..	P	2 7 46	..	..	..	..	
„ „ 4 ..	M	2 31 10	..	..	33	..	
„ „ 4 ..	F	2 50 46	..	..	..	..	
„ „ 8 ..	P	Mixed in tremors.	..	..	..	..	
„ „ 8	M	2 24 40	..	..	44	..	
„ „ 8 ..	F	2 56 40	..	..	..	..	
„ „ 9 ..	P	18 1 39	..	..	..	..	

TABLE II—*contd.*

Date.	Phase.	Time. G. T. M.	Period (Sec.)	Amplitude (μ).			Remarks.
				AN.	AE.	AZ.	
		H. m. s.					
1917 June 9 ..	M	18 8 39	..	..	33	..	
,, ,, 9 ..	F	18 19 44	..	..	..	..	
,, ,, 13 ..	P	7 0 37	..	..	..	..	
,, ,, 13 ..	M	7 53 41	..	..	178	..	
,, ,, 13 ..	F	9 9 29	..	..	..	..	
,, ,, 26 ..	P	6 9 32	..	..	..	..	
,, ,, 26 ..	M	7 5 32	..	..	922	..	
,, ,, 26 ..	F	....	..	..	..	..	End mixed in tremors.
,, July 4 ..	P	0 47 51	..	..	..	..	
,, ,, 4 ..	M	1 11 3	..	..	211	..	
,, ,, 4 ..	F	2 12 21	..	..	..	..	
,, ,, 4 ..	P	....	..	..	..	..	P mixed in tremors.
,, ,, 4 ..	M	6 12 15	..	..	67	..	
,, ,, 4 ..	F	6 40 21	..	..	..	..	
,, ,, 4 ..	P	22 16 50	..	..	..	..	
,, ,, 4 ..	M	22 22 38	..	..	44	..	
,, ,, 4 ..	F	22 42 14	..	..	..	..	
,, ,, 12 ..	P	5 10 38	..	..	..	..	
,, ,, 12 ..	M	5 22 48	..	..	56	..	
,, ,, 12 ..	F	5 39 46	..	..	..	..	
,, ,, 25 ..	P	3 42 33	..	..	..	..	
,, ,, 25 ..	M	4 20 10	..	..	56	..	
,, ,, 25 ..	F	5 4 40	..	..	..	..	
,, ,, 27 ..	P	....	..	..	..	..	P mixed in tremors.
,, ,, 27 ..	M	4 10 31	..	..	556	..	
,, ,, 27 ..	F	5 46 31	..	..	..	..	
,, ,, 29 ..	P	....	..	..	..	..	P lost in shifting time.
,, ,, 29 ..	M	15 13 12	..	..	167	..	
,, ,, 29 ..	F	16 2 49	..	..	..	..	
,, ,, 29 ..	P	21 57 33	..	..	..	..	
,, ,, 29 ..	M	22 48 43	..	..	278	..	
,, ,, 29 ..	F	....	..	..	..	..	F mixed in tremors.
,, ,, 31 ..	P	0 3 42	..	..	..	..	
,, ,, 31 ..	M	0 14 16	..	..	467	..	
,, ,, 31 ..	F	1 17 26	..	..	..	..	
,, ,, 31 ..	P	3 32 15	..	..	..	..	
,, ,, 31 ..	M	3 44 3	..	..	100	..	
,, ,, 31 ..	F	4 28 2[illegible]	..	..	..	..	
,, August 5 ..	P	16 29 14	..	..	..	..	
,, ,, 5 ..	M	17 1 38	..	..	78	..	
,, ,, 5 ..	F	18 16 20	..	..	..	..	
,, ,, 30 ..	P	†4 17 19	..	..	..	..	In Milne's instrument the disturbance is lost in faulty record.
,, ,, 30 ..	S	†4 25 24	..	..	..	..	
,, ,, 31 ..	P	11 59 26	..	..	..	..	
,, ,, 31 ..	M	13 6 13	..	..	167	..	
,, ,, 31 ..	F	13 54 37	..	..	..	..	
,, September 4 ..	P	16 48 29	..	..	..	..	
,, ,, 4 ..	M	16 58 11	..	..	56	..	
,, ,, 4 ..	F	17 11 11	..	..	..	..	
,, ,, 15 ..	P	9 44 50	..	..	..	..	
,, ,, 15 ..	M	10 8 32	..	..	44	..	
,, ,, 15 ..	F	10 27 41	..	..	..	..	
,, ,, 17 ..	P	....	..	..	..	..	P mixed in tremors.
,, ,, 17 ..	M	22 28 46	..	..	44	..	
,, ,, 17 ..	F	....	..	..	..	..	F mixed in tremors.
,, ,, 24 ..	P	†20 20 3	..	..	..	..	
,, ,, 24 ..	S	20 29 50	..	..	..	..	

TABLE II—*concld.*

Date.	Phase.	Time G. M. T.	Period (Sec.)	Amplitude (μ).			Remarks.
				AN.	AE.	AZ.	
		H. m. s.					
1917 September 24 ..	M	20 31 3	..	..	11	..	
„ „ 24 ..	F	....	..	..	..	..	F uncertain.
„ October 17 ..	P	†1 30 12	..	..	..	..	P mixed in tremors.
„ „ 17 ..	M	1 33 56	..	..	56	..	
„ „ 17 ..	F	....	..	..	..	..	F mixed in tremors.
„ November 4 ..	P	12 9 26	..	..	..	..	
„ „ 4 ..	S	12 14 2	..	..	..	..	
„ „ 4 ..	M	12 20 53	..	..	856	..	
„ „ 4 ..	F	13 40 34	..	..	..	..	
„ „ 16 ..	P	3 39 30	..	..	..	..	
„ „ 16 ..	S	3 48 43	..	..	..	..	
„ „ 16 ..	M	4 27 45	..	..	400	..	
„ „ 16 ..	F	6 39 33	..	..	..	..	
„ „ 16 ..	P	....	..	..	..	..	P mixed in tremors.
„ „ 16 ..	M	22 39 28	..	..	67	..	
„ „ 16 ..	F	....	..	..	..	..	F mixed in tremors.
„ „ 18 ..	P	3 6 47	..	..	..	..	
„ „ 18 ..	S	3 13 49	..	..	..	..	
„ „ 18 ..	M	3 28 49	..	..	222	..	
„ „ 18 ..	F	4 10 1	..	..	..	..	
„ „ 28 ..	P	†14 47 43	..	..	..	..	The times from Milne's record are uncertain as the disturbance occurred at shifting time.
„ „ 28 ..	S	†14 52 16	..	..	..	..	
„ „ 28 ..	M	....	..	..	..	..	
„ „ 28 ..	F	....	..	..	..	..	
„ December 1 ..	P	†9 52 22	..	..	..	..	
„ „ 1 ..	S	9 56 15	..	..	..	..	
„ „ 1 ..	M	9 58 15	..	..	22	..	
„ „ 1 ..	F	10 4 31	..	..	..	..	
„ „ 14 ..	P	8 8 52	..	..	..	..	
„ „ 14 ..	M	8 14 27	..	..	44	..	
„ „ 14 ..	F	8 24 48	..	..	..	..	
„ „ 21 ..	P	18 16 3	..	..	..	..	
„ „ 21 ..	M	18 52 48	..	..	178	..	
„ „ 21 ..	F	19 51 49	..	..	..	..	
„ „ 21 ..	P	21 46 7	..	..	..	..	
„ „ 21 ..	M	21 47 19	..	..	44	..	
„ „ 21 ..	F	22 6 7	..	..	..	..	
„ „ 28 ..	P	....	..	..	..	..	P mixed in tremors.
„ „ 28 ..	M	22 9 37	..	..	111	..	
„ „ 28 ..	F	....	..	..	..	..	F mixed in tremors.

One disturbance at about 0^h on 21st January, another at about 0^h on 24th January and a third one at about $1\frac{1}{2}^h$ on 18th February are masked by tremors.

One disturbance at about $23\frac{1}{2}^h$ on 29th December is masked by tremors.

Thickening of line was noted on the following occasions:—

January.—$17^d\ 10^h\ 41^m$; $30^d\ 8^h\ 6^m$ to 8^m.
February.—$12^d\ 12^h\ 16^m$ to 18^m; $14^d\ 6^h\ 5^m$; $14^d\ 6^h\ 9^m$ to 11^m; $26^d\ 10^h\ 10^m$ to 13^m.
March.—$1^d\ 5^h\ 59^m$ to $6^h\ 2^m$; $21^d\ 3^h\ 54^m$; $24^d\ 14^h\ 4^m$; $31^d\ 17^h\ 39^m$.
April.—$14^d\ 4^h\ 39^m$; $20^d\ 11^h\ 30^m$; $20^d\ 12^h\ 10^m$; $24^d\ 3^h\ 36^m$.
May.—$8^d\ 19^h\ 43^m$; $16^d\ 14^h\ 19^m$; $29^d\ 4^h\ 1^m$.
June.—$2^d\ 0^h\ 13^m$ to 17^m; $16^d\ 18^h\ 37^m$; $27^d\ 8^h\ 39^m$ to 44^m.
July.—$1^d\ 7^h\ 16^m$; $4^d\ 21^h\ 36^m$ to 41^m; $9^d\ 2^h\ 32^m$; $10^d\ 20^h\ 25^m$ to 29^m; $23^d\ 18^h\ 2^m$ to 6^m; $31^d\ 7^h\ 14^m$ to 19^m.
August.—$12^d\ 11^h\ 52^m$ to 58^m; $15^d\ 4^h\ 37^m$ to 44^m; $23^d\ 16^h\ 36^m$; $25^d\ 21^h\ 51^m$ to 56^m; $26^d\ 20^h\ 17^m$ to 27^m; $27^d\ 16^h\ 55^m$.
September.—$28^d\ 23^h\ 36^m$ to 38^m.
October.—$16^d\ 17^h\ 40^m$; $19^d\ 18^h\ 7^m$ to 12^m; $21^d\ 7^h\ 44^m$ to 47^m; $22^d\ 8^h\ 49^m$ to 56^m.
November.—$6^d\ 12^h\ 9^m$ to 17^m.
December.—$28^d\ 11^h\ 32^m$ to 36^m.

Times marked with † are as shown by the float record (Tilt seismograph).

TABLE III.

1918.

$\phi = 18° 53' 36''$; $\lambda = 72° 48' 56''$; $h = 11$ *Metres. Subsoil Trap.*
Apparatus—Omori-Ewing Horizontal Pendulum (E.-W.).

	V	To	ϵ	$\frac{r}{To^2}$
AE ..	20	32	..	..

Date.	Phase.	Time G. M. T.	Period (Sec.)	Amplitude (μ) AN.	AE.	AZ.	Remarks.
		H. m. s.					
1918 January 30. ..	P.	21 28 1	..	..	..	..	
,, ,, 30 ..	S.	21 35 36	..	..	..	..	
,, ,, 30 ..	M.	21 43 5	..	..	135	..	
,, February 4 ..	P.	19 0 34	..	..	..	..	
,, ,, 4 ..	M.	19 11 39	..	..	35	..	
,, ,, 7 ..	P.	5 29 35	..	..	..	..	
,, ,, 7 ..	M.	5 47 46	..	..	75	..	
,, ,, 12 ..	P.	3 10 47	..	..	..	..	
,, ,, 12 ..	M.	....	..	..	..	..	M not well marked.
,, ,, 13 ..	P.	2 39 30	..	..	..	..	
,, ,, 13 ..	M.	2 56 35	..	..	25	..	
,, ,, 13 ..	P.	6 14 58	..	..	..	..	
,, ,, 13 ..	M.	6 22 2	..	..	135	..	
,, March 24 ..	P.	23 19 53	..	..	..	..	
,, ,, 24 ..	M.	23 28 32	..	..	35	..	
,, ,, 31 ..	P.	8 8 17	..	..	..	..	
,, ,, 31 ..	M.	....	..	..	..	..	M not well marked.
,, April 10 ..	P.	2 12 37	..	..	..	..	
,, ,, 10 ..	M.	2 26 56	..	..	25	..	
,, ,, 13 ..	P.	0 57 19	..	..	..	..	
,, ,, 13 ..	M.	1 8 17	..	..	180	..	
,, ,, 21 ..	P.	23 35 49	..	..	..	..	
,, ,, 21 ..	M.	....	..	..	..	..	M not well marked.
,, May 19 ..	P.	0 28 23	..	..	..	..	
,, ,, 19 ..	M.	0 34 52	..	..	25	..	
,, ,, 20 ..	P.	14 54 18	..	..	..	..	
,, ,, 20 ..	M.	15 36 57	..	..	50	..	
,, ,, 20 ..	P.	18 14 41	..	..	..	..	
,, ,, 20 ..	M.	19 9 40	..	..	35	..	
,, ,, 23 ..	P.	13 2 26	..	..	..	..	
,, ,, 23 ..	M.	....	..	..	..	..	M not well marked.
,, June 3 ..	..	A slight disturbance is recorded at about 20 minutes past midnight of 3rd, but the movements are small and indefinite and it is difficult to locate the phases exactly.					Record in other seismograph is vitiated by air tremors.
,, July 1 ..	P.	6 17 9	..	..	..	..	
,, ,, ..	M.	....	..	..	..	..	Max. not well marked.
,, ,, 3 ..	P.	7 3 25	..	..	..	..	
,, ,, 3 ..	S.	7 12 58	..	..	..	..	
,, ,, 3 ..	M.	7 37 18	..	..	890	..	
,, ,, 8 ..	P.	10 26 11	..	..	..	..	
,, ,, 8 ..	S.	10 29 29	..	..	..	..	
,, ,, 8 ..	L.	10 31 18	..	..	..	..	
,, ,, 8 ..	M.	....	..	..	..	..	Amplitude too large, stopped by guards.
,, ,, 11 ..	P.	17 15 48	..	..	..	..	

TABLE III—*contd.*

Date.	Phase.	Time G. M. T.	Period (Sec.)	Amplitude (μ)			Remarks.
				AN.	AE.	AZ.	
		H. m. s.					
1918 July 11 ..	M.	....	..	..	..	..	Max. not well marked.
„ „ 21 ..	P.	6 22 25	..	..	..	..	P as shown by the float record. (Tilt Seismograph.)
„ „ 21 ..	M.	....	..	..	..	..	Max. not well marked.
„ August 15 ..	P.	12 26 58	..	..	..	..	
„ „ 15 ..	S.	12 34 30	..	..	..	..	
„ „ 15 ..	M.	....	..	..	..	..	Amplitude too large, stopped by guards.
„ „ 15 ..	P.	17 39 32	..	..	..	..	
„ „ 15 ..	M.	18 6 0	..	..	55	..	
„ September 7 ..	P.	17 27 9	..	..	..	..	P as shown by the tilt seismograph is at 17*h.* 27*m.* 31*s.*
„ „ 7 ..	S.	17 37 15	..	..	..	..	S—P = 10*m.* 6*s.*; Δ = 80°·3
„ „ 7 ..	L.	17 51 29	..	..	..	..	V=4 Km. per sec.
„ „ 7 ..	M.	....	..	..	..	..	Amplitude too large, stopped by guards.
„ „ 7 ..	M.	19 59 46	..	..	..	..	Maximum by the major arc as shown by the tilt seismograph.
„ „ 11 ..	P.	4 15 29	..	..	..	..	
„ „ 11 ..	M.	....	..	..	..	..	Max. not well marked.
„ „ 12 ..	P.	9 43 13	..	..	..	..	
„ „ 12 ..	M.	....	..	..	..	..	Max. not well marked.
„ „ 14 ..	P.	17 24 49	..	..	..	..	
„ „ 14 ..	M.	17 47 21	..	..	15	..	
„ „ 22 ..	P.	10 1 35	..	..	..	..	
„ „ 22 ..	M.	....	..	..	..	..	Max. not well marked.
„ „ 29 ..	P.	12 14 15	..	..	..	..	
„ „ 29 ..	M.	12 30 26	..	..	55	..	
„ „ 30 ..	P.	18 15 12	..	..	..	..	
„ „ 30 ..	M.	....	..	..	..	..	Max. not well marked.
„ October 1 ..	P.	1 22 25	..	..	..	..	
„ „ 1 ..	M.	1 26 45	..	..	45	..	
„ „ 11 ..	P.	14 33 54	..	..	..	..	
„ „ 11 ..	M.	15 19 46	..	..	300	..	
„ „ 16 ..	P.	20 14 43	..	..	..	..	
„ „ 16 ..	M.	....	..	..	..	..	Max. not well marked.
„ „ 27 ..	P.	15 50 44	..	..	..	..	
„ „ 27 ..	M.	16 17 42	..	..	10	..	
„ „ 27 ..	P.	17 18 49	..	..	..	..	
„ „ 27 ..	M.	17 50 25	..	..	60	..	
„ November 8 ..	P.	4 49 11	..	..	..	..	
„ „ 8 ..	M.	5 16 9	..	..	455	..	
„ „ 11 ..	P.	....	..	..	..	..	Commencement doubtful. P as shown by Milne's seismograph is at 7*h.* 37*m.* 54*s.*
„ „ 11 ..	M.	7 42 33	..	..	5	..	
„ „ 18 ..	P.	18 52 6	..	..	..	..	
„ „ 18 ..	M.	19 18 19	..	..	1335	..	
„ „ 22 ..	P.	16 25 3	..	..	..	..	
„ „ 22 ..	M.	16 33 25	..	..	10	..	
„ „ 24 ..	P.	23 8 3	..	..	..	..	
„ „ 24 ..	M.	23 30 33	..	..	35	..	

TABLE III—*contd.*

Date.	Phase.	Time G. M. T.	Period (Sec.)	Amplitude (μ)			Remarks.
				AN.	AE.	AZ.	
		H. m. s.					
1918 November 29 ..	P.	10 47 9	..	..	..	..	
,, ,, 29 ..	M.	10 49 52	..	..	25	..	
,, ,, 30 ..	P.	....	..	..	..	..	Commencement doubtful. P as shown by Milne's seismograph is at 7*h.* 22*m.* 41*s.*
,, ,, 30 ..	M.	7 27 47	..	..	15	..	
,, December 1 ..	P.	2 39 45	..	..	..	..	
,, ,, 1 ..	S.	2 43 24	..	..	..	..	
,, ,, 1 ..	M.	2 46 8	..	..	770	..	
,, ,, 2 ..	P.	10 5 55	..	..	..	..	
,, ,, 2 ..	M.	10 54 22	..	..	100	..	
,, ,, 4 ..	P.	12 7 17	..	..	..	..	
,, ,, 4 ..	S.	12 22 3	..	..	..	..	
,, ,, 4 ..	M.	13 3 57	..	..	750	..	
,, ,, 6 ..	P.	....	..	..	..	...	Beginning doubtful.
,, ,, 6 ..	M.	9 44 12	..	..	30	..	
,, ,, 25 ..	P.	10 34 31	..	..	..	..	Beginning doubtful.
,, ,, 25 ..	M.	10 42 50	..	..	30	..	

Small disturbances were also recorded on the following dates; but the movements are small and it is difficult to locate the phases exactly.

1918 August :—16d 3½h; 16d 8¾h; 17d 7¾h; 23d 6½h; 23d 7½h.
,, September :—8d 0h; 8d 6h.
,, October :—14d 13h; 19d 4¾h; 25d 5h.
,, December :—4d 19½h; 6d 8¾h; 10d 9¼h: 16d 20½h.

TABLE IV.

1919.

$\phi = 18° 53' 36''$; $\lambda = 72° 48' 56''$; $h = 11$ Metres. Subsoil-Trap.
Apparatus—Omori-Ewing Horizontal Pendulum (E.-W.).

	V	To	ϵ	$\frac{r}{T_0{}^2}$
AE ..	20	32	..	..

Date.	Phase.	Time G. M. T.	Period (Sec.).	Amplitude (μ).			Remarks.
				AN.	AE.	AZ.	
		H. m. s.					
1919 January 1 ..	P.	1 43 7	..	...	..	..	
,, ,, 1 ..	S.	1 50 42	..	..	..	..	
,, ,, 1 ..	M.	1 52 22	..	..	760	..	
,, ,, 1 ..	P.	*3 18 33	..	..	..	..	
,, ,, 1 ..	P.	*5 0 56	..	..	..	..	
,, ,, 6 ..	P.	*22 41 0	..	..	..	..	
,, ,, 18 ..	P.	5 59 37	..	..	..	..	Beginning doubtful.
,, ,, 18 ..	M.	6 13 8	..	..	25	..	
,, February 12 ..	P.	13 15 56	..	..	..	..	
,, ,, 12 ..	M.	13 24 23	..	..	20	..	
,, March 2 ..	P.	4 38 21	..	..	..	..	
,, ,, 2 ..	M.	4 54 48	..	..	30	..	
,, ,, 2 ..	P.	*12 4 33	..	..	..	..	
,, ,, 2 ..	M.	13 13 19	..	..	30	..	
,, ,, 21 ..	P.	1 11 15	..	..	..	..	
,, ,, 21 ..	M.	1 34 38	..	..	15	..	
,, April 2 ..	P.	0 42 28	..	..	..	..	
,, ,, 2 ..	M.	0 56 44	..	..	30	..	
,, ,, 17 ..	P.	11 41 50	..	..	..	..	
,, ,, 17 ..	M.	12 27 32	..	..	335	..	
,, ,, 21 ..	P.	7 33 21	..	..	..	..	
,, ,, 21 ..	M.	7 42 3	..	..	15	..	
,, ,, 21 ..	P.	9 56 49	..	..	..	..	
,, ,, 21 ..	M.	....	..	..	..	..	Maximum not well marked.
,, ,, 21 ..	P.	....	..	..	..	..	Beginning doubtful.
,, ,, 21 ..	M.	12 26 11	..	..	25	..	
,, ,, 27 ..	P.	0 30 44	..	..	..	..	
,, ,, 27 ..	M.	0 53 57	..	..	25	..	
,, ,, 30 ..	P.	7 32 47	..	..	..	..	
,, ,, 30 ..	S.	7 47 23	..	..	..	..	
,, ,, 30 ..	M.	8 21 22	..	..	3,000	..	
,, May 1 ..	P.	5 14 20	..	..	..	..	
,, ,, 1 ..	M.	5 34 15	..	..	50	..	
,, ,, 3 ..	P.	1 2 54	..	..	..	..	
,, ,, 3 ..	M.	1 34 19	..	..	160	..	
,, ,, 6 ..	P.	†19 54 8	..	..	..	..	†P as shown by Colaba Seismograph (E. W.).
,, ,, 23 ..	P.	*6 12 14	..	..	..	..	
,, ,, 23 ..	S.	*6 16 49	..	..	..	..	
,, ,, 23 ..	P.	*18 11 33	..	..	..	..	
,, ,, 29 ..	P.	11 10 50	..	..	..	..	
,, ,, 29 ..	M.	11 15 48	..	..	45	..	

Times marked with * are shown by the Float record (Tilt Seismograph).

TABLE IV—*contd.*

Date.	Phase.	Time. G. M. T.	Period (Sec.).	Amplitude (μ).			Remarks.
				AN.	AE.	AZ.	
		H. m. s.					
1919 June 1 ..	P.	*12 51 2	..	..	..	..	
,, ,, 15 ..	P.	18 53 52	..	..	..	..	
,, ,, 15 ..	M.	....	..	..	..	..	Maximum not well marked.
,, ,, 16 ..	P.	....	..	..	..	..	Beginning uncertain.
,, ,, 16 ..	M.	....	..	..	..	..	Maximum not well marked.
,, ,, 30 ..	P.	†7 39 34	..	..	..	..	†P as shown by Colaba Seismograph (E.W.).
,, ,, 30 ..	M.	7 48 23	..	..	85	..	
,, July 8 ..	P.	21 14 59	..	..	..	..	
,, ,, 8 ..	M.	21 32 28	..	..	390	..	
,, ,, 21 ..	P.	19 10 30	..	..	..	..	
,, ,, 21 ..	M.	....	..	..	..	..	Maximum not well marked.
,, ,, 24 ..	P.	2 8 8	..	..	..	..	
,, ,, 24 ..	M.	2 14 28	..	..	510	..	
,, August 29 ..	P.	5 53 56	..	..	..	..	
,, ,, 29 ..	M.	6 17 24	..	..	50	..	
,, ,, 31 ..	P.	17 34 44	..	..	..	..	
,, ,, 31 ..	M.	....	..	..	..	..	Maximum not well marked.
,, September 5 ..	P.	7 57 53	..	..	..	..	
,, ,, 5 ..	M.	....	..	..	..	..	Maximum not well marked.
,, ,, 13 ..	P.	12 38 18	..	..	..	..	
,, ,, 13 ..	M.	12 46 16	..	..	10	..	
,, ,, 26 ..	P.	19 48 43	..	..	..	..	
,, ,, 26 ..	M.	....	..	..	..	..	Maximum not well marked.
,, October 4 ..	P.	17 54 33	..	..	..	..	
,, ,, 4 ..	M.	....	..	..	..	..	Maximum not well marked.
,, ,, 12 ..	P.	21 55 45	..	..	..	..	
,, ,, 12 ..	S.	22 1 28	..	..	..	..	
,, ,, 12 ..	M.	22 11 53	..	..	35	..	
,, ,, 24 ..	P.	20 35 8	..	..	..	..	
,, ,, 24 ..	M.	20 42 19	..	..	10	..	
,, ,, 29 ..	P.	14 43 37	..	..	..	..	
,, ,, 29 ..	M.	....	..	..	..	..	Maximum not well marked.
,, November 18 ..	P.	22 4 9	..	..	..	..	
,, ,, 18 ..	M.	22 22 54	..	..	10	..	
,, December 20 ..	P.	19 42 37	..	..	..	..	
,, ,, 20 ..	M.	20 8 25	..	..	5	..	
,, ,, 20 ..	P.	20 45 57	..	..	..	..	
,, ,, 20 ..	S.	20 52 34	..	..	..	..	
,, ,, 20 ..	M.	21 6 13	..	..	70	..	

Times marked with * are shown by the Float record (Tilt Seismograph).

A disturbance was recorded at about 11 hours on the 7th November but the movements are small and it is difficult to locate the phases exactly.

TABLE V.

1920.

$\phi = 18° 53' 36''$; $\lambda = 72° 48' 56''$; $h = 11$ *Metres. Subsoil-Trap.*
Apparatus—Omori-Ewing Horizontal Pendulum (E.-W.).

	V .	To	€	$\frac{r}{To^2}$.
AE ..	20	32	..	..

Date.	Phase.	Time. G. M. T.	Period (Sec.).	Amplitude (μ). AN.	AE.	AZ.	Remarks.
		H. m. s.					
1920 February 2 ..	P.	11 34 29	..	..	..	..	
,, ,, 2 ..	M.	12 4 35	..	..	855	..	
,, ,, 8 ..	P.	5 51 3	..	..	..	..	Beginning doubtful.
,, ,, 8 ..	M.	....	..	..	..	..	Maximum not well marked.
,, ,, 27 ..	P.	....	..	..	..	..	Disturbance partially lost in shifting time, a little before 4 hours.
,, March 17 ..	P.	18 43 5	..	..	..	..	
,, ,, 17 ..	M.	18 58 43	..	..	30	..	
,, ,, 20 ..	P.	18 54 48	..	..	..	..	
,, ,, 20 ..	M.	....	..	..	..	..	Maximum cannot be determined as the movements are very small.
,, May 2 ..	P.	8 37 3	..	..	..	..	
,, ,, 2 ..	M.	8 40 26	..	..	90	..	
,, ,, 2 ..	P.	14 55 56	..	..	..	..	
,, ,, 2 ..	M.	14 59 13	..	..	120	..	
,, ,, 7 ..	P.	5 50 4	..	..	..	..	
,, ,, 7 ..	M.	6 10 57	..	..	75	..	
,, ,, 7 ..	P.	21 44 23	..	..	..	..	
,, ,, 7 ..	M.	....	..	..	..	..	Maximum cannot be determined as the movements are very small.
,, ,, 13 ..	P.	2 0 17	..	..	..	..	
,, ,, 13 ..	M.	....	..	..	..	..	Maximum cannot be determined as the movements are very small.
,, June 5 ..	P.	4 30 4	..	..	..	..	
,, ,, 5 ..	M.	4 51 16	..	..	675	..	
,, ,, 9 ..	P.	11 40 0*	..	..	..	..	*Beginning doubtful as it is mixed in tremors.
,, ,, 9 ..	M.	....	..	..	..	..	Maximum cannot be determined as the movements are very small.
,, August 15 ..	P.	7 7 29	..	..	..	..	
,, ,, 15 ..	M.	....	..	..	..	..	Do. do.
,, ,, 15 ..	P.	8 30 14	..	..	..	..	
,, ,, 15 ..	M.	....	..	..	..	..	Maximum cannot be determined as the movements are very small.
,, September 20 ..	P.	14 56 4†	..	..	..	..	†These times are given from Colaba seismograph No. 1 as the Omori seismograph record is lost owing to stoppage of the driving clock.
,, ,, 20 ..	M.	15 36 55†	..	..	..	..	
,, October 12 ..	P.	7 2 13	..	..	..	..	
,, ,, 12 ..	M.	7 4 44	..	..	175	..	

TABLE V—*contd.*

Date.	Phase.	Time. G. M. T.	Period (Sec.).	Amplitude (μ).			Remarks.
				AN.	AE.	AZ.	
		M. m. s.					
1920 October 18 ..	P.	8 22 30	..	..	..	..	
,, ,, 18 ..	M.	8 31 27	..	..	60	..	
,, ,, 20 ..	P.	10 12 24	..	..	..	..	
,, ,, 20 ..	M.	10 31 47	..	..	30	..	
,, ,, 28 ..	P.	13 59 43	..	..	..	..	
,, ,, 28 ..	M.	14 7 25	..	..	35	..	
,, December 10 ..	P.	5 36 59	..	..	..	..	
,, ,, 10 ..	M.	....	..	..	..	..	Maximum cannot be exactly determined as the movements are very small.
,, ,, 16 ..	P.	12 12 29	..	..	..	..	
,, ,, 16 ..	M.	....	..	..	..	..	Maximum cannot be determined as the trace had gone out of the field.
,, ,, 25 ..	P.	11 39 43	..	..	..	..	
,, ,, 25 ..	M.	11 54 0	..	..	305	..	

TABLES OF RESULTS

DERIVED FROM

ABSOLUTE MAGNETIC OBSERVATIONS

AND FROM

THE CONTINUOUS REGISTRATIONS OF THE MAGNETOGRPHS

AT

ALIBAG

1916—1920.

Absolute Magnetic Observations, Alibag—Table Ia.

Observations of vibration and deflection, taken with magnetometer no. 7 (T. Cooke and Sons) for the determination of absolute horizontal force.

1916.

1916 Date.	Civil time, mean.	Vibration magnet. Time of one vibration.	Effect of 90° torsion.	Temperature.	Rate of chronometer.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer	Angle of deflection of magnet marked 7. Distance. 22·5 cms.	30·0 cms.	Temperature.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Observer.	Calculated results in C. G. S. unit. Values of m.	Values of H. From deflection at distance. 22·5 cms. ($H_{22·5}$).	30·0 cms. ($H_{30·0}$).	Difference. $H_{22·5}-H_{30·0}$	Mean. $\frac{H_{22·5}+H_{30·0}}{2}$	*Observed monthly mean values of H.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	h. m.	S.	Sc. div.	° ′	S.	cms.	°	° ′ ″	° ′ ″	°	cms.	°							
JAN. 5	13 8	2·7086	1·50	25·7	+2·1	6·384	83·45	26 36 0	10 49 19	25·9	6·365	83·45	G. S. J.	936·70	0·36875	0·36871	+·00004	0·36873	
,, ,,	15 23	2·7091	1·49	26·8	,,	6·386	83·47	26 35 35	10 49 12	26·4	6·371	83·47	G. S. J.	936·76	·36877	·36873	+·00004	·36875	
,, 12	13 21	2·7115	1·50	28·2	+1·9	5·901	83·26	26 34 10	10 48 36	28·4	6·153	83·20	G. S. J.	936·27	·36853	·36851	+·00002	·36852	
,, ,,	15 21	2·7111	1·47	28·8	,,	6·022	83·22	26 33 56	10 48 37	28·7	6·100	83·22	G. S. J.	936·59	·36863	·36858	+·00005	·36860	
,, 19	13 15	2·7089	1·50	26·6	+1·9	6·648	82·95	26 34 46	10 48 52	27·0	6·613	82·95	G. S. J.	936·68	·36881	·36877	+·00004	·36879	0·368719
,, ,,	15 19	2·7095	1·49	27·8	,,	6·647	82·95	26 34 12	10 48 42	27·4	6·612	82·95	G. S. J.	936·70	·36885	·36881	+·00004	·36883	
,, 26	13 16	2·7086	1·51	26·0	+2·0	6·636	82·80	26 35 20	10 49 1	26·1	6·622	82·80	G. S. J.	936·59	·36882	·36881	+·00001	·36881	
,, ,,	15 17	2·7096	1·50	27·1	,,	6·353	82·80	26 34 57	10 48 57	26·9	6·467	82·80	G. S. J.	936·57	·36874	·36871	+·00003	·36872	
FEB. 2	13 1	2·7087	1·50	26·3	+2·0	6·909	82·90	26 34 44	10 48 53	26·1	6·848	82·90	G. S. J.	936·48	·36889	·36885	+·00004	·36887	
,, ,,	15 20	2·7089	1·50	26·1	,,	6·516	82·90	26 35 17	10 49 0	26·0	6·686	82·90	G. S. J.	936·46	·36880	·36878	+·00002	·36879	
,, 9	13 33	2·7071	1·50	24·4	+2·4	6·966	82·00	26 36 15	10 49 22	24·6	6·963	82·00	G. S. J.	936·68	·36892	·36891	+·00001	·36891	
,, ,,	15 21	2·7078	1·50	24·8	,,	6·705	82·00	26 36 32	10 49 37	24·6	6·803	82·00	G. S. J.	936·63	·36882	·36877	+·00005	·36879	
,, 16	13 26	2·7074	1·50	25·2	+2·2	7·281	81·65	26 35 12	10 49 5	25·2	7·147	81·65	G. S. J.	936·61	·36901	·36896	+·00005	·36898	*·368891
,, ,,	15 23	2·7080	1·50	25·2	,,	6·845	81·62	26 35 31	10 49 11	25·2	6·911	81·62	G. S. J.	936·48	·36889	·36885	+·00004	·36887	
,, 23	12 50	2·7071	1·50	25·6	+2·2	7·363	81·50	26 34 46	10 48 54	25·7	7·184	81·50	G. S. J.	936·81	·36909	·36905	+·00004	·36907	
,, ,,	15 14	2·7084	1·50	26·3	,,	6·663	81·50	26 35 25	10 49 7	26·0	6·766	81·50	G. S. J.	936·74	·36887	·36883	+·00004	·36885	
MAR. 1	13 13	2·7083	1·50	27·6	+2·4	7·295	81·80	26 32 55	10 48 10	28·0	7·012	81·80	G. S. J.	936·83	·36908	·36905	+·00003	·36906	
,, ,,	15 26	2·7108	1·50	28·6	,,	6·584	81·85	26 33 21	10 48 17	28·2	6·666	81·85	G. S. J.	936·33	·36876	·36874	+·00002	·36875	
,, 8	13 9	2·7091	1·49	29·1	+2·1	7·631	82·70	26 28 15	10 46 16	29·2	8·518	82·70	G. S. J.	935·84	·36950	·36950	·00000	·36950	
,, ,,	15 31	2·7093	1·50	29·2	,,	7·256	82·72	26 28 40	10 46 27	29·1	8·525	82·72	G. S. J.	935·90	·36944	·36943	+·00001	·36943	
,, 16	13 26	2·7095	1·50	29·9	+2·1	7·085	83·95	26 30 44	10 47 16	30·0	6·965	83·95	G. S. J.	936·79	·36917	·36916	+·00001	·36916	·369006
,, ,,	15 10	2·7111	1·48	30·1	,,	6·528	83·97	26 31 5	10 47 22	30·0	6·766	83·97	G. S. J.	936·35	·36893	·36892	+·00001	·36892	
,, 22	13 15	2·7097	1·50	28·8	+2·0	6·612	84·40	26 32 47	10 48 9	28·9	6·525	84·40	A.	936·81	·36893	·36888	+·00005	·36890	
,, ,,	15 25	2·7111	1·50	29·2	,,	5·957	84·42	26 33 16	10 48 16	29·1	6·165	84·42	A.	936·55	·36870	·36867	+·00003	·36868	
,, 29	12 30	2·7099	1·50	30·0	+2·0	7·135	85·30	26 30 15	10 47 13	30·0	7·205	85·30	A.	936·59	·36918	36912	+·00006	·36915	
,, ,,	13 48	2·7102	1·50	30·0	,,	6·636	85·30	26 30 24	10 47 11	30·0	6·960	85·30	A.	936·48	·36912	·36909	+·00003	·36910	

*The monthly and annual means corrected for diurnal variation appear in table VIII.

1916 Date.	Civil time, mean.	Vibration magnet. Time of one vibration.	Effect of 90° torsion.	Temperature.	Rate of chronometer.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Angle of deflection of magnet marked 7. Distance. 22·5 cms.	30·0 cms.	Temperature.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Observer.	Calculated results in C. G. S. unit. Values of m.	Values of H. From deflection at* distance. 22·5 cms. ($H_{22·5}$).	30·0 cms. ($H_{30·0}$).	Difference. $H_{22·5}-H_{30·0}$	Mean. $\frac{H_{22·5}+H_{30·0}}{2}$	*Observed monthly mean values of H.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	h. m.	S	Sc. div.	°	S.	cms.	°	° ′ ″	° ′ ″	°	cms.	°							
April 5	12 15	2·7089	1·49	29·7	+2·3	7·303	86·10	26 30 34	10 47 15	29·4	7·206	86·10	A.	936·79	0·36931	0·36928	+·00003	0·36929	
„ „	13 30	2·7089	1·49	29·7	„	6·997	86·10	26 30 52	10 47 26	29·3	7·108	86·10	A.	936·85	·36929	·36924	+·00005	·36926	
„ 12	12 9	2·7089	1·50	30·1	+2·5	7·218	86·95	26 30 21	10 47 17	29·8	7·077	86·95	G. S. J.	936·96	·36933	·36927	+·00006	·36930	
„ „	13 20	2·7099	1·49	29·9	„	6·768	86·95	26 30 50	10 47 9	29·7	6·963	86·95	G. S. J.	936·55	·36914	·36916	—·00002	·36915	0·368936
„ 19	13 12	2·7109	1·50	30·4	+2·4	6·457	87·75	26 30 59	10 47 23	30·4	6·271	87·75	G. S. J.	936·57	·36896	·36894	+·00002	·36895	
„ „	15 20	2·7115	1·50	30·6	„	5·833	87·75	26 31 30	10 47 37	30·4	5·968	87·75	G. S. J.	936·57	·36884	·36882	+·00002	·36883	
„ 26	12 24	2·7127	1·50	30·0	+2·4	5·045	88·20	26 33 51	10 48 30	30·0	5·022	88·20	G. S. J.	936·57	·36841	·36838	+·00003	·36839	
„ „	15 12	2·7129	1·50	29·7	„	4·755	88·20	26 34 27	10 48 46	29·6	4·851	88·20	G. S. J.	936·50	·36833	·36830	+·00003	·36831	
May 3	13 20	2·7121	1·50	30·7	+2·1	5·645	88·70	26 32 15	10 47 54	31·0	5·331	88·70	G. S. J.	936·70	·36863	·36860	+·00003	·36861	
„ „	15 25	2·7123	1·50	30·7	„	5·403	88·70	26 32 5	10 47 55	30·9	5·352	88·70	G. S. J.	936·59	·36863	·36858	+·00005	·36860	
„ 10	13 1	2·7105	1·50	30·3	+2·5	6·463	88·90	26 30 52	10 47 18	30·3	6·227	88·90	G. S. J.	936·61	·36903	·36902	+·00001	·36902	
„ „	15 16	2·7121	1·50	30·2	„	5·590	88·92	26 31 54	10 47 43	30·3	5·755	88·92	G. S. J.	936·33	·36869	·36867	+·00002	·36868	
„ 17	13 7	2·7106	1·49	30·6	+2·3	6·183	89·40	26 30 11	10 46 56	31·3	6·091	89·40	G. S. J.	936·66	·36903	·36904	—·00001	·36903	
„ „	15 20	2·7125	1·50	31·0	„	5·504	89·40	26 31 17	10 47 34	31·3	5·702	89·40	G. S. J.	936·46	·36869	·36864	+·00005	·36866	·368633
„ 24	13 7	2·7133	1·50	32·0	+2·1	5·252	90·35	26 31 41	10 47 39	32·0	4·908	90·35	G. S. J.	936·66	·36855	·36853	+·00002	·36854	
„ „	15 30	2·7137	1·48	32·4	„	4·880	90·32	26 31 45	10 47 40	32·0	4·852	90·32	G. S. J.	936·66	·36854	·36851	+·00003	·36852	
„ 31	13 37	2·7141	1·49	32·2	+2·3	4·830	91·00	26 31 57	10 47 51	32·4	4·435	91·00	G. S. J.	936·63	·36839	·36834	+·00005	·36836	
„ „	15 32	2·7148	1·51	32·5	„	4·679	91·05	26 31 48	10 47 42	32·6	4·477	91·05	G. S. J.	936·44	·36832	·36830	+·00002	·36831	
June 7	12 57	2·7106	1·50	30·1	+2·7	6·271	91·15	26 30 18	10 47 13	30·2	6·168	91·15	G. S. J.	936·40	·36907	·36901	+·00006	·36904	
„ „	15 19	2·7120	1·50	30·1	„	5·387	91·07	26 31 41	10 47 33	30·2	5·571	91·07	G. S. J.	936·22	·36873	·36873	·00000	·36873	
„ 14	13 47	2·7113	1·51	30·3	+2·4	6·240	89·80	26 30 46	10 47 21	30·4	6·023	89·80	G. S. J.	936·35	·36892	·36888	+·00004	·36890	
„ „	15 25	2·7121	1·50	30·8	„	5·414	89·80	26 31 15	10 47 22	30·6	5·646	89·80	G. S. J.	936·31	·36879	·36880	—·00001	·36879	
„ 21	13 1	2·7093	1·49	28·0	—1·0	6·010	88·95	26 32 48	10 48 5	28·3	6·010	88·95	G. S. J.	936·55	·36894	·36893	+·00001	·36893	·368897
„ „	15 21	2·7108	1·50	28·6	„	5·451	88·92	26 33 25	10 48 21	28·5	5·670	88·92	G. S. J.	936·40	·36871	·36867	+·00004	·36869	
„ 28	13 29	2·7103	1·50	30·8	—0·8	6·655	88·50	26 29 36	10 46 44	31·0	6.550	88·50	G. S. J.	936·57	·36916	·36917	—·00001	·36916	
„ „	15 25	2·7117	1·49	31·0	„	5·849	88·50	26 30 7	10 47 0	31·0	6·221	88·50	G. S. J.	936·29	·36894	·36894	·00000	·36894	
July 5	12 34	2·7102	1·50	30·0	—0·6	6·207	88·60	26 30 47	10 47 12	30·0	6·206	88·60	G. S. J.	936·53	·36907	·36908	—·00001	·36907	
„ „	15 16	2·7117	1·50	30·0	„	5·842	88·60	26 31 29	10 47 31	30·0	5·961	88·60	G. S. J.	936·22	·36879	·36878	+·00001	·36878	
„ 12	13 8	2·7086	1·52	27·1	—0·6	6·115	88·67	26 34 15	10 48 38	27·5	5·686	88·67	G. S. J.	936·85	·36889	·36887	+·00002	·36888	
„ „	15 21	2·7099	1·49	27·6	„	5·361	88·60	26 34 2	10 48 34	27·5	5·575	88·60	G. S. J.	936·46	·36878	·36876	+·00002	·36877	
„ 19	13 3	2·7095	1·49	28·7	—0·3	6·435	88·22	26 31 50	10 47 30	28·9	6·402	88·22	G. S. J.	936·46	·36904	·36908	—·00004	·36906	·368897
„ „	15 30	2·7103	1·49	29·0	„	5·972	88·22	26 32 11	10 47 42	28·8	6·258	88·22	G. S. J.	936·33	·36893	·36894	—·00001	·36893	
„ 26	13 17	2·7107	1·50	30·3	—0·4	6·281	88·45	26 30 52	10 47 17	30·4	6·088	88·45	G. S. J.	936·54	·36899	·36898	+·00001	·36898	
„ „	15 27	2·7118	1·50	30·2	„	5·493	88·45	26 31 49	10 47 44	30·3	5·696	88·45	G. S. J.	936·40	·36873	·36870	+·00003	·36871	

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Absolute Magnetic Observations, Alibag—Table Ib.

Observations of vibration and deflection, taken with magnetometer no. 3 (Cambridge Scientific Instrument Co.) for the determination of absolute horizontal force.

1916.

1916 Date.	Vibration magnet. Civil time, mean.	Time of one vibration.	Effect of 90° torsion.	Temperature.	Rate of chronometer.	Corresponding mean reading of H. F. magnetograph. Ordinate	Thermometer.	Angle of deflection. Distance. 23 cms.	30 cms.	Temperature.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Observer.	Calculated results in C. G. S. unit. Values of m.	Values of H. From deflection at distance. 23 cms. (H_{23}).	30 cms. (H_{30}).	Difference. $H_{23}-H_{30}$	Mean. $\frac{H_{23}+H_{30}}{2}$	*Observed monthly mean values of H.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	h. m.	S.	Sc. div.	°	S	cms.	°	° ′ ″	° ′ ″	°	cms.	°							
JAN. 3	13 12	2·8832	1·88	26·4	+1·7	7·120	83·60	23 31 37	10 22 30	25·9	6·841	83·60	G. S. J.	906·53	0·36909	0·36909	·00000	0·36909	
,, ,,	15 30	2·8846	2·05	26·3	,,	6·308	83·60	23 31 29	10 22 41	26·1	6·494	83·60	G. S. J.	906·11	·36888	·36881	+·00007	·36884	
,, 10	13 16	2·8840	1·94	26·9	+1·9	7·215	83·15	23 29 47	10 22 4	27·1	7·128	83·15	G. S. J.	906·19	·36914	·36904	+·00010	·36909	
,, ,,	15 30	2·8852	1·75	27·5	,,	6·936	83·17	23 29 11	10 21 50	27·5	7·068	83·17	G. S. J.	905·88	·36909	·36898	+·00011	·36903	
,, 17	13 7	2·8860	1·93	27·5	+1·9	6·175	83·05	23 31 27	10 22 38	27·3	6·135	83·05	G. S. J.	906·19	·36871	·36865	+·00006	·36868	0·368877
,, ,,	15 26	2·8863	1·97	27·4	,,	6·097	83·05	23 31 18	10 22 40	27·6	6·070	83·05	G. S. J.	906·13	·36865	·36856	+·00009	·36860	
,, 24	13 0	2·8845	1·90	26·7	+2·0	6·802	82·80	23 31 54	10 22 49	26·4	6·426	82·80	G. S. J.	906·44	·36887	·36881	+·00006	·36884	
,, ,,	15 26	2·8868	1·85	26·7	,,	6·141	82·80	23 31 36	10 22 47	26·6	6·306	82·80	G. S. J.	905·71	·36860	·36850	+·00010	·36855	
,, 31	13 4	2·8844	1·85	27·5	+2·0	7·217	82·90	23 29 42	10 21 55	27·2	6·987	82·90	G. S. J.	906·15	·36915	·36907	+·00008	·36911	
,, ,,	15 25	2·8854	1·80	27·3	,,	6·585	82·92	23 29 41	10 22 10	27·1	6·728	82·92	G. S. J.	905·88	·36901	·36887	+·00014	·36894	
FEB. 7	13 23	2·8815	1·95	23·8	+2·2	7·482	82·15	23 32 35	10 23 2	23·8	7·250	82·15	G. S. J.	906·38	·36915	·36911	+·00004	·36913	
,, ,,	15 36	2·8833	2·14	24·2	,,	6·848	82·15	23 32 1	10 22 54	24·0	7·042	82·15	G. S. J.	905·80	·36899	·36891	+·00008	·36895	
,, 14	13 21	2·8845	2·01	25·8	+2·4	6·976	81·70	23 31 57	10 22 43	25·7	6·748	81·70	G. S. J.	906·09	·36884	·36882	+·00002	·36883	
,, ,,	15 32	2·8849	2·10	26·0	,,	6·611	81·70	23 31 49	10 22 51	25·8	6·613	81·70	G. S. J.	906·00	·36881	·36872	+·00009	·36876	
,, 21	12 53	2·8829	1·97	25·7	+2·2	7·561	81·45	23 30 56	10 22 36	25·4	7·317	81·45	G. S. J.	906·30	·36919	·36907	+·00012	·36913	·368916
,, ,,	15 30	2·8843	1·91	25·7	,,	6·886	81·45	23 30 56	10 22 34	25·6	7·016	81·45	G. S. J.	905·88	·36900	·36889	+·00011	·36894	
,, 28	13 23	2·8851	1·88	26·7	+2·4	6·744	81·80	23 31 1	10 22 31	26·7	6·637	81·80	G. S. J.	906·09	·36888	·36879	+·00009	·36883	
,, ,,	15 37	2·8856	1·89	26·8	,,	6·345	81·77	23 31 4	10 22 34	26·7	6·406	81·77	G. S. J.	905·96	·36881	·36871	+·00010	·36876	
MARCH 6	13 17	2·8852	2·00	29·0	+2·1	7·190	82·40	23 28 41	10 21 22	29·0	7·002	82·40	G. S. J.	906·25	·36912	·36910	+·00002	·36911	
,, ,,	15 20	2·8866	2·06	29·0	,,	6·781	82·40	23 27 57	10 21 13	28·9	6·865	82·40	G. S. J.	905·61	·36904	·36896	+·00008	·36900	
,, 13	13 24	2·8861	1·94	29·6	+2·1	7·095	83·50	23 29 6	10 21 27	29·3	6·723	83·50	G. S. J.	906·27	·36899	·36899	·00000	·36899	
,, ,,	15 22	2·8880	1·92	29·3	,,	6·285	83·52	23 28 58	10 21 35	29·1	6·498	83·52	G. S. J.	905·59	·36876	·36870	+·00006	·36873	
,, 20	12 37	2·8869	2·17	29·1	+1·9	6·940	84·20	23 29 40	10 21 50	28·2	6·692	84·20	A.	905·86	·36886	·36882	+·00004	·36884	·368887
,, ,,	15 31	2·8892	2·01	28·8	,,	5·520	84·22	23 30 14	10 22 19	28·5	5·922	84·22	A.	905·42	·36845	·36833	+·00012	·36839	
,, 27	13 12	2·8852	2·01	29·2	+2·1	6·870	85·10	23 28 5	10 21 30	28·9	6·628	85·10	A.	906·21	·36922	·36907	+·00015	·36914	
,, ,,	15 12	2·8866	2·04	29·6	,,	6·146	85·10	23 29 0	10 21 50	28·9	6·365	85·10	A.	906·13	·36897	·36883	+·00014	·36890	

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1916 Date.	Civil time, mean.	Vibration magnet. Time of one vibration.	Effect of 90° torsion.	Temperature.	Rate of chronometer.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Angle of deflection. Distance. 23 cms.	30 cms.	Temperature.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Observer.	Calculated results in C. G. S. unit. Values of m.	Values of H. From deflection at distance. 23 cms. (H_{23}).	30 cms. (H_{30}).	Difference. $H_{23}-H_{30}$	Mean. $\frac{H_{23}+H_{30}}{2}$	*Observed monthly mean values of H.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	h. m.	S.	Sc. div.	°	S.	cms.	°	° ′ ″	° ′ ″	°	cms.	°							
Oct. 2	12 30	2·8859	1·38	28·5	+0·3	6·138	86·80	23 29 13	10 21 37	28·0	5·961	86·80	G. S. J.	905·96	0·36905	0·36901	+·00004	0·36903	
„ „	15 7	2·8882	1·42	28·2	„	4·967	86·80	23 29 26	10 21 46	28·1	5·512	86·80	G. S. J.	905·27	·36870	·36864	+·00006	·36867	
„ 9	13 34	2 8872	1·38	28·5	0·0	5·481	86·90	23 30 55	10 22 11	28·4	4·900	86·90	G. S. J.	906·09	·36864	·36865	—·00001	·36864	
„ „	15 33	2·8883	1·37	28·4	„	4·917	86·90	23 30 26	10 22 11	28·4	4·796	86·90	G. S. J.	905·67	·36855	·36850	+·00005	·36852	
„ 16	13 13	2·8872	1·40	29·3	+0·2	6·001	87·35	23 28 55	10 21 18	29·5	5·744	87·35	G. S. J.	905·88	·36885	·36887	—·00002	·36886	
„ „	15 23	2·8879	1·37	29·1	„	5·274	87·37	23 28 26	10 21 31	29·6	5·400	87·37	G. S. J.	905·65	·36881	·36870	+·00011	·36875	0·368786
„ 23	13 16	2·8860	1·38	28·9	+0·2	5·860	87·70	23 28 57	10 21 31	28·7	5·670	87·70	G. S. J.	906·09	·36905	·36900	+·00005	·36902	
„ „	15 26	2·8874	1·39	28·8	„	5·330	87·70	23 28 56	10 21 31	28·8	5·431	87·70	G. S. J.	905·63	·36885	·36880	+·00005	·36882	
„ 30	13 50	2·8869	1·42	28·4	+0·3	5·491	87·95	23 29 51	10 21 42	28·4	5·356	87·95	G. S. J.	905·84	·36880	·36882	—·00002	·36881	
„ „	15 37	2·8877	1·42	28·5	„	5·247	87·92	23 29 5	10 21 40	28·6	5·261	87·92	G. S. J.	905·52	·36878	·36871	+·00007	·36874	
Nov. 6	13 48	2·8880	1·56	29·1	+0·3	4·867	87·65	23 30 43	10 22 2	28·9	4·867	87·65	G. S. J.	905·96	·36855	·36857	—·00002	·36856	
„ „	15 35	2·8885	1·60	28·8	„	4·833	87·70	23 29 16	10 21 45	28·9	4·897	87·70	G. S. J.	905·44	·36865	·36857	+·00008	·36861	
„ 13	12 52	2·8859	1·61	28·6	+0·2	5·699	87·50	23 29 1	10 21 26	28·5	5·750	87·50	G. S. J.	905·96	·36903	·36902	+·00001	·36902	
„ „	15 27	2·8873	1·75	28·7	„	5·326	87·50	23 28 34	10 21 34	28·7	5·491	87·50	G. S. J.	905·54	·36888	·36878	+·00010	·36883	·368815
„ 20	13 8	2·8864	1·51	28·5	+0·1	5·978	87·40	23 28 57	10 21 30	28·2	5·762	87·40	G. S. J.	905·73	·36899	·36895	+·00004	·36897	
„ „	15 31	2·8872	1·58	28·7	„	5·204	87·40	23 28 52	10 21 41	28·6	5·405	87·40	G. S. J.	905·67	·36888	·36877	+·00011	·36882	
„ 27	12 43	2·8859	1·64	27·8	0·0	5·918	87·25	23 29 58	10 21 49	27·8	5·673	87·25	G. S. J.	905·92	·36890	·36889	+·00001	·36889	
„ „	15 24	2·8868	1·62	27·9	„	5·311	87·30	23 29 10	10 21 50	27·9	5·526	87·30	G. S. J.	905·57	·36888	·36877	+·00011	·36882	
Dec. 4	13 2	2·8869	1·58	28·6	0·0	5·555	87·10	23 29 1	10 21 30	29·0	5·380	87·10	G. S. J.	905·77	·36886	·36882	+·00004	·36884	
„ „	15 28	2·8882	1·60	28·7	„	4·967	87·10	23 29 20	10 21 50	28·8	5·063	87·10	G. S. J.	905·50	·36867	·36859	+·00008	·36863	
„ 11	13 6	2·8854	1·62	26·7	+0·3	5·922	86·30	23 30 45	10 22 15	26·6	5·575	86·30	G. S. J.	905·86	·36888	·36884	+·00004	·36886	·368817
„ „	14 51	2·8856	1·63	26·6	„	5·532	86·30	23 30 43	10 22 16	26·6	5·467	86·30	G. S. J.	905·75	·36885	·36880	+·00005	·36882	
„ 18	13 7	2·8838	1·74	25·1	+0·2	5·858	85·15	23 31 44	10 22 51	25·1	5·800	85·15	G. S. J.	906·02	·36895	·36886	+·00009	·36890	
„ „	15 10	2·8844	1·79	25·3	„	5·654	85·17	23 31 41	10 22 37	25·4	5·772	85·17	G. S. J.	905·84	·36887	·36883	+·00004	·36885	
												Mean for the year =		905·95			+·000065		

The mean * observed value of the horizontal force for the year 1916 = 0·368885

*The monthly and annual means corrected for diurnal variation appear in table VIIIa.

Absolute Magnetic Observations, Alibag—Table IIa.

OBSERVATIONS OF ABSOLUTE DECLINATION, 1916.

Taken with magnetometer no. 7 (T. Cooke and Sons).

1916 Date.	Alibag civil time.	Mean readings. Collimator magnet. Scale apparently. Erect.	Collimator magnet. Scale apparently. Inverted.	Horizontal circle with telescope pointed to. Scale of collimator magnet.	Kennery light house.	Torsion. Mean.	Torsion. Effect of 90°.	Observer.	Corresponding reading of declination magnetograms.	Absolute easterly declination corrected for Torsion.	Monthly mean. Corresponding reading of declination magnetograms.	Monthly mean. *Observed absolute easterly declination.
1	2	3	4	5	6	7	8	9	10	11	12	13
	h. m.	Sc. div.	Sc. div.	° ′ ″	° ′ ″	°	Sc. div.		cms.	° ′ ″	cms.	° ′ ″
JAN. 6	14 1	55·6	..	85 8 0	222 23 5	0	..	G. S. J.	4·085	0 38 20		
,, 13	12 13	55·6	..	85 8 35	222 23 5	0	..	G. S. J.	4·175	0 38 55		
,, 20	12 53	55·6	..	85 6 40	222 22 55	0	..	G. S. J.	4·002	0 37 10	4·063	0 37 47
,, 27	12 27	55·6	..	85 6 5	222 22 45	0	..	G. S. J.	3·992	0 36 45		
FEB. 3	12 56	55·6	..	85 7 25	222 22 55	0	..	G. S. J.	4·110	0 37 55		
,, 10	12 44	55·6	..	85 7 20	222 22 40	0	..	G. S. J.	4·150	0 38 5	4·177	0 38 11
,, 17	12 49	55·6	..	85 6 55	222 22 35	0	..	G. S. J.	4·157	0 37 45		
,, 24	12 0	55·6	..	85 8 5	222 22 30	0	..	G. S. J.	4·290	0 39 0		
MARCH 3	12 28	55·6	..	85 6 20	222 22 40	0	..	G. S. J.	4·112	0 37 5		
,, 9	12 15	55·6	..	85 7 25	222 22 35	0	..	G. S. J.	4·240	0 38 15		
,, 17	12 11	55·6	..	85 7 50	222 22 40	0	..	G. S. J.	4·310	0 38 35	4·143	0 37 4
,, 23	12 6	55·6	..	85 5 10	222 22 30	0	..	G. S. J.	4·042	0 36 5		
,, 30	12 9	55·6	..	85 4 30	222 22 35	0	..	A.	4·010	0 35 20		
APRIL 6	11 49	55·6	..	85 7 0	222 22 20	0	..	A.	4·102	0 38 5		
,, 13	12 3	55·6	..	85 5 30	222 22 30	0	..	A.	3·970	0 36 25	3·977	0 36 30
,, 20	11 48	55·6	..	85 5 0	222 22 40	0	..	G. S. J.	3·905	0 35 45		
,, 27	12 39	55·6	..	85 5 0	222 22 40	0	..	G. S. J.	3·930	0 35 45		
MAY 4	12 28	55·6	..	85 5 50	222 22 45	0	..	G. S. J.	3·962	0 36 30		
,, 11	12 15	55·6	..	85 2 40	222 22 45	0	..	G. S. J.	3·645	0 33 20	3·799	0 34 52
,, 18	12 9	55·6	..	85 4 5	222 22 35	0	..	G. S. J.	3·820	0 34 55		
,, 25	13 3	55·6	..	85 4 5	222 22 45	0	..	G. S. J.	3·770	0 34 45		
JUNE 1	12 28	55·6	..	85 3 55	222 22 40	0	..	G. S. J.	3·795	0 34 40		
,, 8	12 47	55·6	..	85 2 50	222 22 50	0	..	G. S. J.	3·660	0 33 25		
,, 15	12 37	55·6	..	85 2 45	222 22 55	0	..	G. S. J.	3·680	0 33 15	3·749	0 33 54
,, 22	13 8	55·6	..	85 2 30	222 22 50	0	..	G. S. J.	3·712	0 33 5		
,, 29	11 38	55·6	..	85 4 35	222 22 55	0	..	G. S. J.	3·900	0 35 5		
JULY 6	13 17	55·6	..	85 2 40	222 22 55	0	..	G. S. J.	3·670	0 33 10		
,, 13	12 38	55·6	..	85 5 10	222 23 0	0	..	G. S. J.	3·892	0 35 35	3·793	0 34 25
,, 20	12 42	55·6	..	85 3 50	222 23 0	0	..	G. S. J.	3·790	0 34 15		
,, 27	12 11	55·6	..	85 4 15	222 23 0	0	..	G. S. J.	3·820	0 34 40		
AUG. 3	12 44	55·6	..	85 3 0	222 22 50	0	..	G. S. J.	3·730	0 33 35		
,, 10	12 21	55·6	..	85 3 25	222 23 10	0	..	G. S. J.	3·760	0 33 40		
,, 17	12 40	55·6	..	85 1 45	222 23 10	0	..	G. S. J.	3·607	0 32 0	3·749	0 33 16
,, 24	12 37	55·6	..	85 3 55	222 23 30	0	..	G. S. J.	3·820	0 33 50		
,, 31	12 39	55·6	..	85 3 20	222 23 30	0	..	G. S. J.	3·830	0 33 15		
SEPT. 7	12 10	55·6	..	85 4 5	222 23 30	0	..	G. S. J.	3·890	0 34 0		
,, 14	12 25	55·6	..	85 1 40	222 23 30	0	..	G. S. J.	3·615	0 31 35	3·758	0 32 44
,, 21	12 30	55·6	..	85 1 25	222 23 35	0	..	G. S. J.	3·635	0 31 15		
,, 28	12 36	55·6	..	85 4 30	222 23 50	0	..	G. S. J.	3·892	0 34 5		
OCT. 5	12 49	55·6	..	85 2 55	222 23 40	0	..	G. S. J.	3·760	0 32 40		
,, 12	13 14	55·6	..	85 4 10	222 23 40	0	..	G. S. J.	3·890	0 33 55	3·882	0 34 0
,, 19	13 41	55·6	..	85 4 30	222 23 40	0	..	G. S. J.	3·880	0 34 15		
,, 27	12 57	55·6	..	85 5 20	222 23 35	0	..	G. S. J.	4·000	0 35 10		
NOV. 2	12 45	55·6	..	85 5 35	222 23 40	0	..	G. S. J.	4·060	0 35 20		
,, 9	12 59	55·6	..	85 6 15	222 23 35	0	..	G. S. J.	4·072	0 36 5	4·024	0 35 24
,, 16	12 10	55·6	..	85 5 45	222 23 55	0	..	G. S. J.	4·000	0 35 15		
,, 23	12 36	55·6	..	85 5 25	222 23 55	0	..	G. S. J.	3·965	0 34 55		
DEC. 1	12 44	55·6	..	85 6 15	222 23 55	0	..	G. S. J.	4·030	0 35 45		
,, 7	13 11	55·6	..	85 5 50	222 24 0	0	..	G. S. J.	3·987	0 35 15		
,, 14	12 29	55·6	..	85 4 35	222 23 55	0	..	G. S. J.	3·875	0 34 5	†3·985	0 35 5
,, 21	12 54	55·6	..	85 5 30	222 23 50	0	..	G. S. J.	4.0000	0 35 5		
,, 29	13 30	55·6	..	85 5 40	222 23 50	0	..	G. S. J.	‡4·035	0 35 15		

The mean* observed declination for the year 1916 = 0° 35′ 16″

* The monthly and annual means corrected for diurnal variation appear in table VIII.

‡Owing to a shift in the zero line of declination magnetograph on the 27th December the ordinates were permanently increased by ·095 cms.

†This mean is corrected for shift in the zero.

Absolute Magnetic Observations, Alibag—Table IIb.

OBSERVATIONS OF ABSOLUTE DECLINATION, 1916.

Taken with magnetometer no. 3 (Cambridge Scientific Instrument Co.).

1916 Date.	Alibag civil time.	Mean readings. Collimator magnet. Scale apparently. Erect.	Inverted.	Horizontal circle with telescope pointed to. Scale of collimator magnet.	Kennery light house.	Torsion. Mean.	Effect of 90°.	Observer.	Corresponding reading of declination magnetograms.	Absolute easterly declination corrected for torsion.	Monthly mean. Corresponding reading of declination magnetograms.	*Observed absolute easterly declination.
1	2	3	4	5	6	7	8	9	10	11	12	13
	h. m.	Sc. div.	Sc. div.	° ′ ″	° ′ ″	°	Sc. div.		cms.	° ′ ″	cms.	° ′ ″
JAN. 6	14 55	35·00	34·27	276 7 50	53 22 20	0	..	G. S. J.	4·217	0 39 36		
„ 13	12 47	34·95	34·37	276 6 55	53 22 20	0	..	G. S. J.	4·137	0 38 33		
„ 20	13 24	35·02	34·35	276 6 5	53 22 15	0	..	G. S. J.	4·065	0 37 53	4·099	0 38 3
„ 27	13 1	35·02	34·25	276 3 55	53 21 55	0	..	G. S. J.	3·978	0 36 9		
FEB. 3	13 22	35·05	34·37	276 5 50	53 22 20	0	..	G. S. J.	4·102	0 37 34		
„ 10	13 25	34·87	34·32	276 5 10	53 22 0	0	..	G. S. J.	4·119	0 37 6		
„ 17	13 22	34·92	33·92	276 4 55	53 22 0	0	..	G. S. J.	4·163	0 37 17	4·150	0 37 21
„ 24	12 33	34·87	34·15	276 5 10	53 21 50	0	..	G. S. J.	4·215	0 37 26		
MARCH 3	13 1	35·05	33·97	276 3 50	53 21 55	0	..	G. S. J.	4·129	0 36 22		
„ 9	12 49	34·92	34·10	276 4 50	53 21 55	0	..	G. S. J.	4·207	0 37 7		
„ 17	12 43	34·95	34·05	276 4 45	53 21 50	0	..	G. S. J.	4·214	0 37 12	4·102	0 36 9
„ 23	13 2	34·97	33·67	276 2 25	53 21 50	0	..	G. S. J.	3·996	0 35 14		
„ 30	12 38	35·00	35·00	276 3 25	53 22 0	0	..	A.	3·963	0 34 50		
APRIL 6	12 52	35·00	35·00	276 5 0	53 22 0	0	..	A.	4·025	0 36 25		
„ 13	12 24	35·00	34·50	276 4 10	53 22 10	0	..	A.	3·965	0 35 54	3·929	0 35 42
„ 20	12 31	34·95	34·42	276 2 55	53 22 10	0	..	G. S. J.	3·795	0 34 40		
„ 27	13 7	34·90	34·35	276 4 5	53 22 10	0	..	G. S. J.	3·930	0 35 51		
MAY 4	13 3	34·95	34·60	276 4 30	53 22 0	0	..	G. S. J.	3·937	0 36 14		
„ 11	12 50	35·07	34·17	276 1 35	53 21 45	0	..	G. S. J.	3·663	0 34 7	3·802	0 35 17
„ 18	12 48	34·95	34·32	276 3 25	53 21 50	0	..	G. S. J.	3·837	0 35 36		
„ 25	13 32	34·97	34·35	276 3 10	53 22 0	0	..	G. S. J.	3·773	0 35 11		
JUNE. 1	13 7	34·97	34·17	276 3 10	53 22 10	0	..	G. S. J.	3·792	0 35 11		
„ 8	13 19	34·95	34·72	276 1 10	53 21 50	0	..	G. S. J.	3·607	0 32 58		
„ 15	13 11	34·95	34·17	276 1 35	53 22 5	0	..	G. S. J.	3·688	0 33 40	3·728	0 34 15
„ 22	13 36	35·02	34·32	276 2 10	53 22 5	0	..	G. S. J.	3·715	0 34 10		
„ 29	12 14	34·92	34·27	276 3 50	53 22 30	10E	0.52	G. S. J.	3·836	0 35 15		
JULY. 6	13 46	35·02	34·17	276 2 10	53 22 15	0	..	G. S. J.	3·735	0 34 8		
„ 13	13 9	35·00	34·12	276 3 40	53 22 10	0	..	G. S. J.	3·896	0 35 45		
„ 20	13 16	34·95	34·27	276 2 10	53 22 25	0	..	G. S. J.	3·762	0 33 49	3·811	0 34 36
„ 27	12 46	35·00	34·20	276 2 45	53 22 15	0	..	G. S. J.	3·852	0 34 41		
AUG. 3	13 16	35·00	34·15	276 2 10	53 22 25	0	..	G. S. J.	3·756	0 33 58		
„ 10	12 53	35·05	34·20	276 2 5	53 22 50	0	..	G. S. J.	3·722	0 33 28		
„ 17	13 14	34·95	34·15	276 0 30	53 22 50	0	..	G. S. J.	3·608	0 31 51	3·759	0 33 26
„ 24	13 10	35·02	34·12	276 2 35	53 23 5	0	..	G. S. J.	3·838	0 33 47		
„ 31	13 14	35·02	34·15	276 3 10	53 23 20	0	..	G. S. J.	3·872	0 34 4		
SEPT. 7	12 39	34·92	34·32	276 3 10	53 23 0	0	..	G. S. J.	3·876	0 34 9		
„ 14	13 25	35·05	34·30	276 1 35	53 22 45	0	..	G. S. J.	3·760	0 32 57	3·806	0 33 25
„ 21	13 15	35·10	33·85	276 0 40	53 23 0	0	..	G. S. J.	3·687	0 32 16		
„ 28	13 19	34·95	34·25	276 3 30	53 23 15	0	..	G. S. J.	3·902	0 34 20		
OCT. 5	13 21	35·05	34·00	276 2 30	53 23 25	0	..	G. S. J.	3·797	0 33 30		
„ 12	14 13	35·07	34·10	276 3 40	53 23 15	0	..	G. S. J.	3·967	0 34 45		
„ 19	14 13	35·10	34·02	276 3 25	53 23 15	0	..	G. S. J.	3·920	0 34 37	3·924	0 34 32
„ 27	13 32	34·97	34·17	276 4 20	53 23 15	0	..	G. S. J.	4·013	0 35 10		
NOV. 2	13 21	34·97	34·15	276 5 40	53 23 45	0	..	G. S. J.	4·097	0 36 7		
„ 9	13 29	35·00	34·20	276 5 40	53 23 25	0	..	G. S. J.	4·090	0 36 26		
„ 16	12 42	34·92	34·30	276 5 25	53 23 35	0	..	G. S. J.	4·022	0 35 51	4·054	0 36 0
„ 23	13 9	34·97	34·17	276 5 10	53 23 45	0	..	G. S. J.	4·008	0 35 36		
DEC. 1	13 10	35·00	34·17	276 5 15	53 23 30	0	..	G. S. J.	4·055	0 35 57		
„ 7	13 38	35·05	34·15	276 4 50	53 23 40	0	..	G. S. J.	4·001	0 35 27		
„ 14	13 3	35·10	34·15	276 4 10	53 23 35	0	..	G. S. J.	3·966	0 34 54	†4·029	0 35 28
„ 21	13 28	35·02	34·12	276 4 10	53 23 20	0	..	G. S. J.	4·003	0 35 7		
„ 29	14 15	34·97	34·30	276 5 15	53 23 25	0	..	G. S. J.	‡4·122	0 35 53		
								The mean* observed declination for the year 1916 =				0 35 21

* The monthly and annual means corrected for diurnal variation appear in table VIIIa.

‡ Owing to a shift in the zero line of declination magnetograph on the 27th December the ordinates were permanently increased by 0·095 cms.

† This mean is corrected for shift in the zero.

Absolute Magnetic Observations, Alibag—Table IIIa.

OBSERVATIONS OF INCLINATION, 1916.

Taken with inductor no. 41 by Schulze and galvanometer no. 200 by Plath.

1916 Date.		Alibag civil time. (0 to 24 hours). At commencement. h.	m.	At conclusion. h.	m.	Observers.	Face of circle. East. °	′	West. °	′	Mean inclination. °	′	*Monthly mean inclination. °	′
JAN.	3	11	33	11	53	G. S. J. and G. P. M	24	23·40	24	23·45	24	23·42		
,,	5	11	13	11	30	G. P. M. and G. S. J.	24	24·46	24	24·00	24	24·23		
,,	7	11	28	11	41	G. P. M. and G. S. J.	24	23·62	24	23·45	24	23·53		
,,	8	12	8	12	26	G. S. J. and G. P. M.	24	23·61	24	24·19	24	23·90		
,,	10	11	18	11	33	G. P. M. and G. S. J.	24	22·47	24	22·67	24	22·57		
,,	12	11	17	11	35	G. S. J. and G. P. M.	24	22·82	24	23·04	24	22·93		
,,	15	12	1	12	21	G. S. J.	24	23·95	24	24·34	24	24·14		
,,	17	11	25	11	42	G. S. J. and G. P. M.	24	23·44	24	23·46	24	23·45		
,,	19	11	23	11	41	G. P. M. and G. S. J.	24	23·37	24	23·97	24	23·67	24	23·42
,,	21	11	13	11	25	G. P. M. and G. S. J.	24	24·45	24	24·85	24	24·65		
,,	22	11	32	11	48	G. S. J. and G. P. M.	24	22·55	24	23·15	24	22·85		
,,	24	11	5	11	19	G. P. M. and G. S. J.	24	23·37	24	23·47	24	23·42		
,,	26	11	16	11	32	G. S. J. and G. P. M.	24	23·39	24	24·04	24	23·71		
,,	28	11	40	11	56	G. S. J. and G. P. M.	24	22·17	24	22·46	24	22·31		
,,	29	11	30	11	43	G. P. M. and G. S. J.	24	23·47	24	23·56	24	23·51		
,,	31	11	22	11	45	G. S. J. and G. M. P.	24	22·36	24	22·61	24	22·48		
FEB.	2	11	0	11	12	G. P. M. and G. S. J.	24	23·39	24	23·60	24	23·49		
,,	4	11	15	11	30	G. P. M. and G. S. J.	24	22·76	24	22·64	24	22·70		
,,	5	11	56	12	21	G. S. J. and G. P. M.	24	22·77	24	23·18	24	22·97		
,,	7	11	0	11	15	G. P. M. and G. S. J.	24	23·38	24	23·40	24	23·39		
,,	9	11	21	11	41	G. S. J. and G. P. M.	24	23·62	24	24·06	24	23·84		
,,	11	11	24	11	41	G. S. J. and G. P. M.	24	24·82	24	24·88	24	24·85		
,,	12	11	1	11	23	G. P. M. and G. S. J.	24	24·81	24	24·56	24	24·68		
,,	14	11	21	11	38	G. S. J. and G. P. M.	24	26·98	24	24·68	24	24·33	24	24·18
,,	16	10	56	11	9	G. P. M. and G. S. J.	24	23·82	24	23·58	24	23·70		
,,	18	11	7	11	24	G. P. M. and G. S. J.	24	24·47	24	24·25	24	24·36		
,,	19	11	17	11	36	G. S. J. and G. P. M.	24	24·77	24	25·22	24	24·99		
,,	21	11	1	11	13	G. P. M. and G. S. J.	24	24·16	24	24·08	24	24·12		
,,	23	11	17	11	33	G. S. J. and G. P. M.	24	23·69	24	24·15	24	23·92		
,,	25	11	31	11	50	G. S. J. and G. P. M.	24	24·46	24	25·17	24	24·81		
,,	26	11	11	11	24	G. P. M. and G. S. J.	24	25·28	24	25·44	24	25·36		
,,	28	11	33	11	57	G. S. J. and G. P. M.	24	25·06	24	25·60	24	25·33		
MARCH	1	11	1	11	17	G. P. M. and G. S. J.	24	24·42	24	24·65	24	24·53		
,,	3	11	10	11	22	G. P. M. and G. S. J.	24	23·50	24	23·66	24	23·58		
,,	4	11	47	12	6	G. S. J. and G. P. M.	24	24·10	24	24·78	24	24·44		
,,	6	11	0	11	13	G. P. M. and G. S. J.	24	23·49	24	23·81	24	23·65		
,,	8	11	25	11	42	G. S. J. and G. P. M.	24	23·72	24	23·54	24	23·63		
,,	10	13	7	13	23	G. S. J. and G. P. M.	24	25·28	24	26·39	24	25·83		
,,	11	11	51	12	6	G. P. M. and G. S. J.	24	24·39	24	24·20	24	24·29		
,,	13	11	3	11	19	G. S. J. and G. P. M.	24	24·91	24	25·35	24	25·13		
,,	15	15	16	15	29	G. P. M. and G. S. J.	24	26·59	24	26·65	24	26·62	24	24·64
,,	17	11	9	11	21	G. P. M. and G. S. J.	24	26·87	24	27·01	24	26·94		
,,	18	11	22	11	43	G. S. J. and G. P. M.	24	27·08	24	26·26	24	26·67		
,,	20	11	0	11	16	G. P. M. and G. S. J.	24	26·41	24	26·15	24	26·28		
,,	22	11	15	11	32	G. S. J. and G. P. M.	24	24·20	24	24·31	24	24·25		
,,	24	11	31	11	53	G. S. J. and G. P. M.	24	23·95	24	24·45	24	24·20		
,,	25	11	19	11	44	A. and G. P. M.	24	23·74	24	23·50	24	23·62		
,,	27	11	23	11	41	A. and G. P. M.	24	23·33	24	23·01	24	23·17		
,,	29	11	17	11	31	G. P. M. and A.	24	22·34	24	23·35	24	22·84		
,,	31	11	30	11	45	G. P. M. and A.	24	23·82	24	23·73	24	23·77		
APRIL	1	11	17	11	30	A. and G. P. M.	24	25·81	24	24·83	24	25·32		
,,	3	11	24	11	42	G. P. M. and A.	24	23·41	24	23·23	24	23·32		
,,	5	11	14	11	28	A. and G. P. M.	24	22·97	24	22·64	24	22·80		
,,	7	11	6	11	20	A. and G. P. M.	24	24·07	24	23·93	24	24·00		
,,	8	11	30	11	42	G. P. M. and A.	24	23·61	24	23·45	24	23·53		
,,	10	11	23	11	40	A. and G. P. M.	24	23·45	24	23·41	24	23·43		
,,	12	10	55	11	22	G. P. M. and A.	24	21·94	24	22·05	24	21·99		
,,	14	11	35	11	52	G. P. M. and A.	24	21·94	24	21·85	24	21·89		
,,	15	11	19	11	39	A and G. P. M.	24	22·31	24	22·56	24	22·43	24	24·19
,,	17	11	3	11	16	G. P. M. and G. S. J.	24	23·80	24	23·69	24	23·74		
,,	19	11	35	11	54	G. S. J. and G. P. M.	24	24·96	24	25·51	24	25·23		
,,	21	11	34	11	50	G. S. J. and G. P. M.	24	23·75	24	23·95	24	23·85		
,,	22	11	9	11	22	G. P. M. and G. S. J.	24	24·67	24	24·41	24	24·54		
,,	24	11	24	11	41	G. S. J. and G. P. M.	24	24·36	24	24·46	24	24·41		
,,	26	10	55	11	8	G. P. M. and G. S. J.	24	27·11	24	26·79	24	26·95		
,,	28	10	53	11	8	G. P. M. and G. S. J.	24	25·78	24	26·39	24	26·08		
,,	29	11	31	11	54	G. S. J. and G. P. M.	24	27·82	24	27·67	24	27·74		

*The monthly and annual means corrected for diurnal variation appear in table VIII.

1916 Date.		Alibag civil time. (0 to 24 hours). At commencement. h.	m.	At conclusion. h.	m.	Observers.	Face of circle. East. °	′	West. °	′	Mean inclination. °	′	*Monthly mean inclination. °	′
MAY	1	10	58	11	14	G. P. M. and G. S. J.	24	25·37	24	25·85	24	25·61		
„	3	11	31	11	49	G. S. J. and G. P. M.	24	25·96	24	26·39	24	26·17		
„	5	11	55	12	19	G. S. J. and G. P. M.	24	25·31	24	25·47	24	25·39		
„	6	11	6	11	19	G. P. M. and G. S. J.	24	26·07	24	25·95	24	26·01		
„	8	11	20	11	38	G. S. J. and G. P. M.	24	25·96	24	26·03	24	25·99		
„	10	10	56	11	9	G. P. M. and G. S. J.	24	25·68	24	25·59	24	25·63		
„	12	11	3	11	15	G. P. M. and G. S. J.	24	25·51	24	25·91	24	25·71		
„	13	11	31	11	55	G. S. J. and G. P. M.	24	25·62	24	26·16	24	25·89		
„	15	11	2	11	25	G. P. M. and G. S. J.	24	25·48	24	25·79	24	25·63	24	25·95
„	17	11	38	11	56	G. S. J. and G. P. M.	24	25·42	24	25·84	24	25·63		
„	19	11	24	11	44	G. S. J. and G. P. M.	24	25·49	24	25·40	24	25·44		
„	20	11	4	11	17	G. P. M. and G. S. J.	24	24·41	24	24·52	24	24·46		
„	22	12	30	12	51	G. S. J. and G. P. M.	24	27·18	24	27·95	24	27·56		
„	24	11	20	11	41	G. S. J. and G. P. M.	24	26·92	24	27·05	24	26·98		
„	26	11	8	11	26	G. P. M. and G. S. J.	24	25·45	24	25·86	24	25·65		
„	27	12	2	12	23	G. S. J. and G. P. M.	24	26·09	24	26·58	24	26·33		
„	29	11	22	11	37	G. P. M. and G. S. J.	24	25·31	24	25·44	24	25·37		
„	31	11	49	12	8	G. S. J. and G. P. M.	24	27·54	24	27·67	24	27·60		
JUNE	2	12	51	13	9	G. S. J. and G. P. M.	24	25·42	24	25·62	24	25·52		
„	3	11	15	11	28	G. P. M. and G. S. J.	24	25·73	24	25·64	24	25·68		
„	5	11	15	11	34	G. P. M.	24	25·05	24	25·13	24	25·09		
„	7	10	59	11	17	G. P. M. and G. S. J.	24	25·24	24	25·26	24	25·25		
„	9	11	25	11	42	G. P. M. and G. S. J.	24	26·47	24	26·51	24	26·49		
„	10	11	7	11	22	G. S. J. and G. P. M.	24	26·27	24	26·03	24	26·15		
„	12	11	10	11	25	G. P. M. and G. S. J.	24	26·48	24	26·59	24	26·53		
„	14	11	6	11	23	G. S. J. and G. P. M.	24	26·08	24	25·93	24	26·00		
„	16	11	23	11	39	G. S. J. and G. P. M.	24	25·79	24	25·77	24	25·78	24	25·79
„	17	11	10	11	23	G. P. M. and G. S. J.	24	24·26	24	24·65	24	24·45		
„	19	11	22	11	37	G. S. J. and G. P. M.	24	26·20	24	26·26	24	26·23		
„	21	11	8	11	21	G. P. M. and G. S. J.	24	27·09	24	27·31	24	27·20		
„	23	10	52	11	7	G. P. M. and G. S. J.	24	25·91	24	26·01	24	25·96		
„	24	11	19	11	36	G. S. J. and G. P. M.	24	24·80	24	24·83	24	24·81		
„	26	11	7	11	22	G. P. M. and G. S. J.	24	25·64	24	25·70	24	25·67		
„	28	11	9	11	25	G. S. J. and G. P. M.	24	25·96	24	26·28	24	26·12		
„	30	11	18	11	34	G. S. J. and G. P. M.	24	25·40	24	25·50	24	25·45		
JULY	1	10	56	11	9	G. P. M. and G. S. J.	24	27·17	24	27·30	24	27·23		
„	3	11	15	11	31	G. S. J. and G. P. M.	24	26·54	24	26·95	24	26·74		
„	5	11	7	11	21	G. P. M. and G. S. J.	24	25·91	24	25·90	24	25·90		
„	7	10	58	11	11	G. P. M. and G. S. J.	24	26·34	24	26·59	24	26·46		
„	8	11	16	11	31	G. S. J. and G. P. M.	24	26·98	24	27·09	24	27·03		
„	10	10	45	11	1	G. P. M. and G. S. J.	24	27·72	24	27·71	24	27·71		
„	12	11	26	11	44	G. S. J. and G. P. M.	24	26·37	24	26·58	24	26·47		
„	14	11	20	11	38	G. S. J. and G. P. M.	24	26·24	24	26·09	24	26·16		
„	15	10	51	11	6	G. P. M. and G. S. J.	24	26·64	24	26·80	24	26·72	24	26·52
„	17	11	24	11	46	G. S. J. and G. P. M.	24	26·58	24	26·52	24	26·55		
„	19	11	19	11	32	G. P. M. and G. S. J.	24	26·28	24	26·04	24	26·16		
„	21	10	51	11	5	G. P. M. and G. S. J.	24	26·08	24	27·09	24	26·58		
„	22	11	9	11	30	G. S. J. and G. P. M.	24	25·55	24	25·20	24	25·37		
„	24	11	46	12	1	G. P. M. and G. S. J.	24	26·22	24	26·07	24	26·14		
„	26	11	30	11	46	G. S. J. and G. P. M.	24	27·29	24	27·78	24	27·53		
„	28	11	17	11	31	G. S. J. and G. P. M.	24	25·25	24	25·34	24	25·29		
„	29	11	7	11	21	G. P. M. and G. S. J.	24	27·05	24	27·06	24	27·05		
„	31	11	15	11	30	G. S. J. and G. P. M.	24	26·32	24	26·37	24	26·34		
AUG.	2	11	10	11	25	G. P. M. and G. S. J.	24	24·41	24	24·96	24	24·68		
„	7	10	57	11	16	G. P. M. and G. S. J.	24	26·49	24	26·89	24	26·69		
„	12	14	17	14	33	G. P. M. and G. S. J.	24	28·87	24	28·99	24	28·93		
„	14	11	25	11	40	G. S. J. and G. P. M.	24	27·45	24	27·29	24	27·37		
„	16	10	50	11	3	G. P. M. and G. S. J.	24	25·96	24	26·23	24	26·09		
„	18	10	58	11	11	G. P. M. and G. S. J.	24	25·67	24	25·55	24	25·61	24	27·13
„	19	11	16	11	31	G. S. J. and G. P. M.	24	25·27	24	25·39	24	25·33		
„	23	11	15	11	32	G. S. J. and G. P. M.	24	28·18	24	28·51	24	28·34		
„	25	11	26	11	43	G. S. J. and G. P. M.	24	28·15	24	28·54	24	28·34		
„	26	10	55	11	10	G. P. M. and G. S. J.	24	27·76	24	27·42	24	27·59		
„	28	11	17	11	36	G. S. J. and G. P. M.	24	28·57	24	28·81	24	28·69		
„	30	10	57	11	12	G. P. M. and G. S. J.	24	27·82	24	28·00	24	27·91		
SEPT.	2	11	27	11	43	G. S. J. and G. P. M.	24	28·45	24	28·65	24	28·55		
„	4	10	52	11	6	G. P. M. and G. S. J.	24	28·91	24	29·17	24	29·04		
„	6	10	59	11	15	G. S. J. and G. P. M.	24	27·65	24	28·23	24	27·94		
„	8	11	38	11	53	G. S. J. and G. P. M.	24	27·93	24	28·42	24	28·17		
„	9	11	10	11	25	G. P. M. and G. S. J.	24	27·87	24	28·28	24	28·07		
„	11	11	24	11	43	G. S. J. and G. P. M.	24	28·42	24	28·18	24	28·30	24	28·18
„	13	11	6	11	23	G. P. M. and G. S. J.	24	27·56	24	27·68	24	27·62		
„	15	11	7	11	24	G. P. M. and G. S. J.	24	27·09	24	27·68	24	27·38		
„	16	11	25	11	43	G. S. J. and G. P. M.	24	27·13	24	27·61	24	27·37		
„	18	11	0	11	22	G. P. M.	24	29·74	24	29·42	24	29·58		
„	20	11	24	11	43	G. S. J. and G. P. M.	24	27·94	24	28·20	24	28·07		

* The monthly and annual means corrected for diurnal variation appear in table VIII.

1916 Date.		Alibag civil time. (0 to 24 hours). At commencement. h.	m.	At conclusion. h.	m.	Observers.	Face of circle. East. °	′	West. °	′	Mean inclination. °	′	*Monthly mean inclination. °	′
SEPT.	22	11	19	11	38	G. S. J. and G. P. M.	24	29·18	24	28·90	24	29·04		
,,	23	11	19	11	32	G. P. M. and G. S. J.	24	27·34	24	27·80	24	27·57		
,,	25	11	8	11	27	G. S. J. and G. P. M.	24	27·69	24	27·63	24	27·66		
,,	27	11	11	11	26	G. P. M. and G. S. J.	24	28·68	24	29·20	24	28·94		
,,	29	10	55	11	9	G. P. M. and G. S. J.	24	27·88	24	28·46	24	28·17		
,,	30	11	9	11	29	G. S. J. and G. P. M.	24	27·65	24	27·55	24	27·60		
OCT.	2	11	5	11	19	G. P. M. and G. S. J.	24	28·02	24	28·27	24	28·14		
,,	4	11	27	11	45	G. S. J. and G. P. M.	24	26·92	24	27·57	24	27·24		
,,	7	10	56	11	11	G. P. M. and G. S. J.	24	27·99	24	28·52	24	28·25		
,,	9	11	14	11	32	G. S. J. and G. P. M.	24	29·51	24	29·64	24	29·57		
,,	11	11	41	12	9	G. S. J. and P. G. S.	24	28·97	24	29·07	24	29·02		
,,	13	11	47	12	5	G. S. J. and P. G. S.	24	29·03	24	29·04	24	29·03		
,,	14	12	2	12	23	G. S. J. and P. G. S.	24	28·87	24	29·30	24	29·08		
,,	16	11	48	12	8	G. S. J. and P. G. S.	24	28·21	24	28·80	24	28·50	24	29·08
,,	18	11	38	11	57	G. S. J. and P. G. S.	24	28·78	24	29·29	24	29·03		
,,	20	11	50	12	7	G. S. J. and P. G. S.	24	28·18	24	28·87	24	28·52		
,,	21	12	7	12	41	P. G. S. and G. S. J.	24	29·30	24	29·64	24	29·47		
,,	23	11	46	12	2	G. S. J. and P. G. S.	24	30·27	24	30·88	24	30·57		
,,	27	11	57	12	25	P. G. S. and G. S. J.	24	29·52	24	30·43	24	29·97		
,,	28	12	37	12	57	G. S. J. and P. G. S.	24	29·27	24	29·63	24	29·45		
,,	30	12	25	12	57	P. G. S. and G. S. J.	24	29·93	24	30·76	24	30·34		
NOV.	1	11	38	11	56	G. S. J. and P. G. S.	24	30·04	24	30·59	24	30·31		
,,	3	11	25	11	47	G. S. J. and P. G. S.	24	29·20	24	29·37	24	29·28		
,,	4	11	54	12	22	P. G. S. and G. S. J.	24	30·75	24	31·01	24	30·88		
,,	6	11	47	12	7	G. S. J. and P. G. S.	24	30·65	24	31·51	24	31·08		
,,	8	11	13	11	32	P. G. S. and G. S. J.	24	31·65	24	31·76	24	31·70		
,,	10	11	36	12	0	G. S. J.	24	31·04	24	31·51	24	31·27		
,,	11	11	28	11	47	G. S. J. and G. P. M.	24	31·29	24	31·47	24	31·38		
,,	13	11	9	11	23	G. P. M. and G. S. J.	24	30·60	24	30·42	24	30·51		
,,	15	11	57	12	13	G. S. J. and G. P. M.	24	30·60	24	30·73	24	30·66	24	30·73
,,	17	11	20	11	37	G. S. J. and G. P. M.	24	30·86	24	30·68	24	30·77		
,,	18	11	21	11	34	G. P. M. and G. S. J.	24	30·17	24	30·17	24	30·17		
,,	20	11	22	11	41	G. S. J. and G. P. M.	24	30·49	24	30·59	24	30·54		
,,	22	11	0	11	15	G. P. M. and G. S. J.	24	30·39	24	31·02	24	30·70		
,,	24	11	1	11	14	G. P. M. and G. S. J.	24	31·20	24	31·26	24	31·23		
,,	25	11	52	12	11	G. S. J. and G. P. M.	24	30·23	24	30·43	24	30·33		
,,	27	10	59	11	11	G. P. M. and G. S. J.	24	30·67	24	31·05	24	30·86		
,,	29	11	15	11	33	G. S. J. and G. P. M.	24	30·43	24	31·16	24	30·79		
DEC.	1	11	24	11	45	G. S. J.	24	31·12	24	31·95	24	31·53		
,,	2	11	56	12	20	G. S. J.	24	30·41	24	30·95	24	30·68		
,,	4	11	23	11	48	G. S. J. and G. P. M.	24	31·25	24	31·89	24	31·57		
,,	6	11	5	11	20	G. P. M. and G. S. J.	24	32·76	24	32·84	24	32·80		
,,	8	11	3	11	17	G. P. M. and G. S. J.	24	32·27	24	32·73	24	32·50		
,,	9	11	22	11	38	G. S. J. and G. P. M.	24	30·70	24	31·29	24	30·99		
,,	11	11	9	11	22	G. P. M. and G. S. J.	24	31·69	24	31·99	24	31·84		
,,	13	11	10	11	30	G. S. J. and G. P. M.	24	31·28	24	31·75	24	31·51		
,,	15	11	34	11	53	G. S. J. and G. P. M.	24	31·16	24	31·58	24	31·37	24	31·78
,,	16	11	5	11	17	G. P. M. and G. S. J.	24	32·25	24	32·56	24	32·40		
,,	18	11	24	11	42	G. S. J. and G. P. M.	24	31·63	24	31·72	24	31·67		
,,	20	10	56	11	13	G. P. M. and G. S. J.	24	31·16	24	31·32	24	31·24		
,,	22	11	40	11	54	G. P. M. and G. S. J.	24	30·81	24	31·24	24	31·02		
,,	23	12	9	12	31	G. S. J. and G. P. M.	24	31·77	24	31·93	24	31·85		
,,	27	12	1	12	16	G. S. J. and G. P. M.	24	31·34	24	32·11	24	31·72		
,,	29	12	34	12	53	G. S. J. and G. P. M.	24	33·32	24	33·59	24	33·45		
,,	30	11	9	11	23	G. P. M. and G. S. J.	24	31·95	24	32·38	24	32·16		
											The mean * observed inclination for the year 1916 =		24°	26·80′

* The monthly and annual means corrected for diurnal variation appear in table VIII.

Absolute Magnetic Observations, Alibag—Table IIIb.

Observations of inclination, 1916.

Taken with inductor no. 108 and galvanometer no. 108A by Otto Toepfer and Sons.

1916 Date.	Alibag civil time. (0 to 24 hours). At commencement. h.	m.	At conclusion. h.	m.	Observers.	Face of circle. East. °	′	West. °	′	Mean. inclination. °	′	*Monthly mean inclination. °	′
JAN. 4	11	57	12	18	G. S. J. and G. P. M.	24	23·12	24	22·96	24	23·04		
,, 6	11	1	11	19	G. S J. and G. P. M.	24	24·13	24	23·83	24	23·98		
,, 8	7	20	7	37	G. P. M. and G. S. J.	24	26·43	24	26·39	24	26·41		
,, 11	11	26	11	44	G. P. M. and G. S. J.	24	23·88	24	23·99	24	23·93		
,, 13	7	36	7	53	G. S. J. and G. P. M.	24	28·06	24	27·47	24	27·76		
,, 13	11	11	11	25	G. P. M. and G. S. J.	24	24·97	24	25·37	24	25·17	24	25·38
,, 18	11	21	11	38	G. S. J. and G. P. M.	24	25·64	24	25·32	24	25·48		
,, 20	11	30	11	46	G. S. J. and G. P. M.	24	25·08	24	25·24	24	25·16		
,, 22	7	15	7	31	G. P. M. and G. S. J.	24	26·57	24	26·77	24	26·67		
,, 25	11	17	11	31	G. P. M. and G. S. J.	24	25·01	24	25·20	24	25·10		
,, 27	11	2	11	17	G. P. M. and G. S. J.	24	24·50	24	24·47	24	24·48		
,, 29	8	10	8	29	G. S. J. and G. P. M.	24	27·48	24	27·33	24	27·40		
FEB. 1	11	19	11	40	G. S. J. and G. P. M.	24	25·38	24	25·85	24	25·61		
,, 3	11	34	11	54	G. S. J. and G. P. M.	24	25·70	24	25·46	24	25·58		
,, 5	7	29	7	45	G. P. M. and G. S. J.	24	27·12	24	27·41	24	27·26		
,, 8	11	10	11	25	G. P. M. and G. S. J.	24	24·54	24	24·44	24	24·49		
,, 10	11	7	11	22	G. P. M. and G. S. J.	24	24·77	24	25·01	24	24·89		
,, 12	7	46	8	3	G. S. J. and G. P. M.	24	27·15	24	26·93	24	27·04		
,, 15	12	55	13	14	G. S. J. and G. P. M.	24	25·64	24	25·22	24	25·43	24	25·88
,, 17	11	26	11	45	G. S. J. and G. P. M.	24	25·70	24	25·34	24	25·52		
,, 19	7	16	7	32	G. P. M. and G. S. J.	24	27·02	24	27·22	24	27·12		
,, 22	10	57	11	11	G. P. M. and G. S. J.	24	25·26	24	25·20	24	25·23		
,, 24	11	1	11	19	G. P. M. and G. S. J.	24	25·72	24	25·57	24	25·64		
,, 26	7	33	7	53	G. S. J. and G. P. M.	24	26·55	24	26·48	24	26·51		
,, 29	11	59	12	20	G. S. J. and G. P. M.	24	26·29	24	26·02	24	26·15		
MARCH 4	7	9	7	25	G. P. M. and G. S. J.	24	27·33	24	27·34	24	27·33		
,, 7	11	16	11	31	G. P. M. and G. S. J.	24	25·62	24	25·71	24	25·66		
,, 9	11	29	11	47	G. P. M. and G. S. J.	24	30·52	24	30·74	24	30·63		
,, 11	12	25	12	45	G. S. J. and G. P. M.	24	25·83	24	25·97	24	25·90		
,, 14	15	19	15	36	G. S. J. and G. P. M.	24	27·69	24	27·93	24	27·81		
,, 16	11	19	11	36	G. S. J. and G. P. M.	24	26·06	24	26·07	24	26·06	24	27·59
,, 18	7	0	7	18	G. P. M. and G. S. J.	24	29·58	24	29·85	24	29·71		
,, 21	11	11	11	25	G. P. M. and G. S. J.	24	27·34	24	27·42	24	27·38		
,, 23	11	9	11	24	G. P. M. and G. S. J.	24	26·61	24	26·68	24	26·64		
,, 25	7	8	7	30	A. and G. P. M.	24	30·44	24	30·05	24	30·24		
,, 28	11	18	11	41	A. and G. P. M	24	25·92	24	25·74	24	25·83		
,, 30	11	34	11	48	A. and G. P. M.	24	27·91	24	27·81	24	27·86		
APRIL 1	7	0	7	17	G. P. M. and A.	24	30·11	24	30·02	24	30·06		
,, 4	11	0	11	27	G. P. M. and A.	24	23·17	24	23·35	24	23·26		
,, 6	11	15	11	28	G. P. M. and A.	24	24·42	24	24·65	24	24·53		
,, 8	7	16	7	38	A. and G. P. M.	24	29·32	24	29·13	24	29·22		
,, 13	11	35	11	52	A. and G. P. M.	24	25·24	24	25·12	24	25·18		
,, 15	7	15	7	28	G. P. M. and A.	24	29·34	24	29·03	24	29·18	24	26·93
,, 18	10	54	11	7	G. P. M. and G. S. J.	24	25·07	24	24·77	24	24·92		
,, 20	10	59	11	12	G. P. M. and G. S. J.	24	23·87	24	23·97	24	23·92		
,, 22	7	14	7	29	G. S. J. and G. P. M.	24	29·56	24	29·43	24	29·49		
,, 25	11	27	11	46	G. S. J. and G. P. M.	24	25·57	24	25·92	24	25·74		
,, 27	11	25	11	53	G. S. J. and G. P. M.	24	26·32	24	26·50	24	26·41		
,, 29	7	7	7	24	G. P. M. and G. S. J.	24	31·19	24	31·22	24	31·20		
MAY 2	11	4	11	22	G. P. M. and G. S. J.	24	25·09	24	25·24	24	25·16		
,, 4	11	3	11	19	G. P. M. and G. S. J.	24	25·71	24	25·96	24	25·83		
,, 6	7	1	7	20	G. S. J. and G. P. M.	24	30·15	24	29·39	24	29·77		
,, 9	11	30	11	47	G. S. J. and G. P. M.	24	28·72	24	26·67	24	26·69		
,, 11	11	27	11	48	G. S. J. and G. P. M.	24	27·24	24	27·25	24	27·24		
,, 13	7	16	7	36	G. P. M. and G. S. J.	24	30·31	24	30·01	24	30·16		
,, 16	11	2	11	22	G. P. M. and G. S. J.	24	26·41	24	26·44	24	26·42	24	27·71
,, 18	11	8	11	22	G. P. M. and G. S. J.	24	27·29	24	27·08	24	27·18		
,, 20	7	2	7	20	G. S. J. and G. P. M.	24	29·22	24	28·74	24	28·98		
,, 23	12	33	12	56	G. S. J. and G. P. M.	24	29·38	24	29·09	24	29·23		
,, 25	11	56	12	13	G. S. J. and G. P. M.	24	27·01	24	26·80	24	26·90		
,, 27	7	3	7	23	G. P. M. and G. S. J.	24	30·72	24	30·45	24	30·58		
,, 30	11	14	11	29	G. P. M. and G. S. J.	24	26·71	24	26·46	24	26·58		

* The monthly and annual means corrected for diurnal variation appear in table VIIIa.

1916 Date.		Alibag civil time. (0 to 24 hours). At commencement.		At conclusion.		Observers.	Face of circle. East.		West.		Mean inclination.		*Monthly mean inclination.	
		h.	m.	h.	m.		°	′	°	′	°	′	°	′
JUNE	1	11	6	11	22	G. P. M. and G. S. J.	24	27·51	24	27·26	24	27·38		
,,	3	6	43	7	2	G. S. J. and G. P. M.	24	30·50	24	30·58	24	30·54		
,,	6	11	25	11	45	G. S. J. and G. P. M.	24	27·19	24	26·99	24	27.09		
,,	8	11	25	11	42	G. S. J. and G. P. M.	24	25·65	24	25·40	24	25·52		
,,	10	6	56	7	16	G. P. M. and G. S. J.	24	31·18	24	31·05	24	31·11		
,,	13	11	0	11	27	G. P. M. and G. S. J.	24	28·26	24	28·44	24	28·35		
,,	15	11	4	11	19	G. P. M. and G. S. J.	24	26·78	24	26·53	24	26·65	24	28·29
,,	17	6	50	7	9	G. S. J. and G. P. M.	24	30·65	24	30·17	24	30·41		
,,	20	11	14	11	32	G. S. J. and G. P. M.	24	28·29	24	28·10	24	28·19		
,,	22	11	12	11	35	G. S. J. and G. P. M.	24	26·69	24	27·01	24	26·85		
,,	24	6	59	7	23	G. P. M. and G. S. J.	24	32·02	24	31·62	24	31·82		
,,	27	10	46	11	4	G. P. M. and G. S. J.	24	26·45	24	26·38	24	26·41		
,,	29	10	50	11	8	G. P. M. and G. S. J.	24	27·73	24	27·27	24	27·50		
JULY	1	6	59	7	22	G. S. J. and G. P. M.	24	30·73	24	30·84	24	30·78		
,,	4	11	59	12	16	G. S. J. and G. P. M.	24	24·88	24	24·87	24	24·87		
,,	6	11	20	11	37	G. S. J. and G. P. M.	24	27·22	24	27·07	24	27·14		
,,	8	6	54	7	16	G. P. M. and G. S. J.	24	30·87	24	31·23	24	31·05		
,,	11	11	8	11	43	G. P. M. and G. S. J.	24	31·01	24	30·47	24	30·74		
,,	13	11	12	11	32	G. P. M. and G. S. J.	24	28·75	24	28·61	24	28·68		
,,	15	7	19	7	42	G. S. J. and G. P. M.	24	30·82	24	30·83	24	30·82	24	28·78
,,	18	11	22	11	41	G. S. J. and G. P. M.	24	26·53	24	26·20	24	26·36		
,,	20	11	12	11	31	G. S. J. and G. P. M.	24	26·25	24	26·31	24	26·28		
,,	22	6	56	7	15	G. P. M. and G. S. J.	24	31·30	24	31·01	24	31·15		
,,	25	11	8	11	26	G. P. M. and G. S. J.	24	28·02	24	27·84	24	27·93		
,,	27	10	57	11	15	G. P. M. and G. S. J.	24	27·37	24	27·15	24	27·26		
,,	29	7	51	8	10	G. S. J. and G. P. M.	24	31·27	24	31·00	24	31·13		
AUG.	1	11	39	12	0	G. S. J. and G. P. M.	24	26·71	24	26·48	24	26·59		
,,	3	11	40	12	9	G. S. J. and G. P. M.	24	27·17	24	27·49	24	27·33		
,,	4	11	42	12	3	G. P. M. and G. S. J.	24	27·48	24	27·48	24	27·48		
,,	5	11	32	11	52	G. S. J. and G. P. M.	24	28·75	24	27·91	24	28·33		
,,	8	11	28	11	46	G. P. M. and G. S. J.	24	28·39	24	28·57	24	28·48		
,,	9	12	12	12	33	G. S. J. and G. P. M.	24	27·27	24	26·98	24	27·12		
,,	10	10	55	11	11	G. P. M. and G. S. J.	24	27·12	24	27·30	24	27·21		
,,	11	11	26	11	48	G. S. J. and G. P. M.	24	28·68	24	28·09	24	28·38		
,,	15	12	11	12	34	G. S. J. and G. P. M.	24	27·95	24	27·72	24	27·83	24	29·09
,,	17	11	23	11	50	G. S. J. and G. P. M.	24	27·72	24	27·58	24	27·65		
,,	19	7	16	7	36	G. P. M. and G. S. J.	24	30·92	24	31·20	24	31·06		
,,	22	11	21	11	38	G. P. M. and G. S. J.	24	29·19	24	29·10	24	29·14		
,,	24	11	15	11	33	G. P. M. and G. S. J.	24	32·03	24	31·24	24	31·63		
,,	26	7	24	7	41	G. S. J. and G. P. M.	24	32·52	24	32·87	24	32·69		
,,	29	11	18	11	42	G. S. J. and G. P. M.	24	31·85	24	31·87	24	31·86		
,,	31	7	2	7	23	G. P. M. and G. S. J.	24	32·78	24	32·56	24	32·67		
,,	31	11	20	11	40	G. S. J. and G. P. M.	24	29·29	24	29·00	24	29·14		
SEPT.	5	11	0	11	18	G. P. M. and G. S. J.	24	30·58	24	30·57	24	30·57		
,,	7	10	58	11	14	G. P. M. and G. S. J.	24	30·11	24	29·73	24	29·92		
,,	9	7	10	7	30	G. S. J. and G. P. M.	24	34·76	24	34·87	24	34·81		
,,	12	11	21	11	48	G. S. J. and G. P. M.	24	31·00	24	31·07	24	31·03		
,,	14	11	27	11	46	G. S. J. and G. P. M.	24	29·39	24	29·23	24	29·31		
,,	16	7	7	7	29	G. P. M. and G. S. J.	24	35·06	24	34·87	24	34·96	24	31·14
,,	19	11	1	11	20	G. P. M. and G. S. J.	24	29·37	24	29·08	24	29·22		
,,	21	10	55	11	14	G. P. M. and G. S. J.	24	28·76	24	28·89	24	28·82		
,,	23	7	24	7	43	G. S. J. and G. P. M.	24	32·26	24	32·49	24	32·37		
,,	26	11	37	11	57	G. S. J. and G. P. M.	24	29·59	24	29·86	24	29·72		
,,	28	11	30	11	49	G. S. J. and G. P. M.	24	29·50	24	29·18	24	29·34		
,,	30	6	53	7	10	G. P. M. and G. S. J.	24	33·74	24	33·51	24	33·62		
OCT.	3	11	9	11	30	G. P. M. and G. S. J.	24	29·94	24	29·81	24	29·87		
,,	5	7	13	7	32	G. S. J. and G. P. M.	24	33·39	24	33·61	24	33·50		
,,	5	10	50	11	5	G. P. M. and G. S. J.	24	29·09	24	29·11	24	29·10		
,,	10	11	55	12	16	G. S. J. and G. P. M.	24	30·20	24	30·55	24	30·37		
,,	12	12	5	12	38	G. S. J. and P. G. S.	24	30·58	24	30·47	24	30·52		
,,	14	8	5	8	27	G. S. J. and P. G. S.	24	33·35	24	33·11	24	33·23	24	31·16
,,	17	12	5	12	30	G. S. J. and P. G. S.	24	31·30	24	30·98	24	31·14		
,,	19	12	29	13	17	P. G. S. and G. S. J.	24	29·15	24	29·61	24	29·38		
,,	21	7	19	7	38	G. S. J. and P. G. S.	24	33·19	24	32·95	24	33·07		
,,	24	11	40	11	58	G. S. J. and P. G. S.	24	31·40	24	31·31	24	31·35		
,,	28	7	59	8	39	P. G. S. and G. S. J.	24	32·37	24	32·25	24	32·31		
,,	31	12	14	12	43	P. G. S. and G. S. J.	24	29·77	24	30·38	24	30·07		
NOV.	2	11	36	12	6	P. G. S. and G. S. J.	24	29·81	24	29·83	24	29·82		
,,	4	7	36	7	54	G. S. J. and P. G. S.	24	34·77	24	34·86	24	34·81		
,,	7	11	57	12	30	G. S. J. and P. G. S.	24	30·60	24	30·41	24	30·50		
,,	9	11	32	12	0	G. S. J. and P. G. S.	24	30·29	24	30·74	24	30·51	24	32·09
,,	11	7	21	7	48	G. P. M. and G. S. J.	24	34·35	24	34·71	24	34·53		
,,	14	11	8	11	25	G. P. M. and G. S. J.	24	32·35	24	31·97	24	32·16		
,,	16	10	57	11	14	G. P. M. and G. S. J.	24	31·51	24	31·71	24	31·61		

* The monthly and annual means corrected for diurnal variation appear in table VIIIa.

1916 Date.		Alibag civil time. (0 to 24 hours). At commencement. h.	m.	At conclusion. h.	m.	Observers.	Face of circle. East. °	′	West. °	′	Mean inclination. °	′	*Monthly mean inclination. °	′
NOV.	18	7	17	7	35	G. S. J. and G. P. M.	24	33·87	24	33·50	24	33·68		
,,	21	11	30	11	51	G. S. J. and G. P. M.	24	31·29	24	31·67	24	31·48		
,,	23	11	26	11	45	G. S. J. and G. P. M.	24	31·74	24	31·69	24	31·71		
,,	25	7	36	7	53	G. P. M. and G. S. J.	24	33·94	24	34·19	24	34·06	24	32·09
,,	28	11	5	11	23	G. P. M. and G. S. J.	24	31·01	24	31·06	24	31·03		
,,	30	10	59	11	16	G. P. M. and G. S. J.	24	31·35	24	31·16	24	31·25		
DEC.	2	7	31	7	54	G. S. J.	24	34·72	24	35·20	24	34·96		
,,	5	11	33	11	56	G. S. J. and G. P. M.	24	32·30	24	32·51	24	32·40		
,,	7	11	48	12	8	G. S. J. and G. P. M.	24	33·32	24	33·47	24	33·39		
,,	9	7	43	8	1	G. P. M. and G. S. J.	24	34·67	24	34·72	24	34·69		
,,	12	11	19	11	36	G. P. M. and G. S. J.	24	33·28	24	33·22	24	33·25		
,,	14	10	58	11	14	G. P. M. and G. S. J.	24	32·37	24	32·42	24	32·39		
,,	16	7	37	7	56	G. S. J. and G. P. M.	24	35·03	24	35·13	24	35·08	24	33·74
,,	19	11	31	11	54	G. S. J. and G. P. M.	24	32·34	24	32·37	24	32·35		
,,	21	12	15	12	35	G. S. J. and G. P. M.	24	33·27	24	33·47	24	33·37		
,,	22	12	23	12	40	G. P. M. and G. S. J.	24	33·97	24	33·85	24	33·91		
,,	26	11	5	11	26	G. P. M. and G. S. J.	24	33·11	24	33·05	24	33·08		
,,	28	11	51	12	12	G. S. J. and G. P. M.	24	34·35	24	34·68	24	34·51		
,,	30	7	40	8	0	G. S. J. and G. P. M.	24	35·38	24	35·09	24	35·23		

The mean * observed inclination for the year 1916 = 24° 28′·98

* The monthly and annual means corrected for diurnal variation appear in table VIIIa.

Absolute Magnetic Observations, Alibag—Table Ia.

Observations of vibration and deflection, taken with magnetometer no. 7 (T. Cooke and Sons) for the determination of absolute horizontal force.

1917.

1917 Date.	Civil time, mean.	Vibration magnet. Time of one vibration.	Effect of 90° torsion.	Temperature.	Rate of chronometer.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Angle of deflection of magnet marked 7. Distance. 22·5 cms.	30·0 cms.	Temperature.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Observer.	Calculated results in C. G. S. unit. Values of m.	Values of H. From deflection at distance. 22·5 cms. ($H_{22·5}$).	30·0 cms. ($H_{30·0}$).	Difference. $H_{22·5}-H_{30·0}$	Mean. $\frac{H_{22·5}+H_{30·0}}{2}$	*Observed monthly mean values of H.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	h. m.	S.	Sc. div.	°	S.	cms.	°	° ′ ″	° ′ ″	°	cms.	°							
JAN. 3	12 39	2·7084	1·54	24·3	0·0	5·557	82·92	26 37 35	10 49 55	24·7	5·638	82·92	G. S. J.	936·57	0·36857	0·36854	+·00003	0·36855	
,, ,,	15 14	2·7084	1·52	25·2	,,	5·980	82·97	26 36 52	10 49 38	25·0	5·880	82·97	G. S. J.	936·63	·36871	·36868	+·00003	·36869	
,, 10	13 12	2·7091	1·54	27·0	+ 0·1	5·977	82·90	26 34 29	10 48 50	27·5	5·822	82·90	G. S. J.	936·74	·36879	·36874	+·00005	·36876	
,, ,,	15 13	2·7093	1·54	27·1	,,	5·430	82·92	26 35 37	10 49 10	27·1	5·512	82·92	G. S. J.	936·87	·36868	·36865	+·00003	·36866	
,, 17	13 0	2·7090	1·55	26·5	+ 0·2	5·895	82·90	26 35 28	10 49 6	27·1	5·635	82·90	G. S. J.	936·79	·36869	·36867	+·00002	·36868	0·368702
,, ,,	14 44	2·7108	1·55	27·4	,,	5·405	82·90	26 35 20	10 49 6	27·2	5·492	82·90	G. S. J.	936·38	·36852	·36849	+·00003	·36850	
,, 24	12 47	2·7076	1·54	25·4	+ 0·1	6·285	82·80	26 35 25	10 49 7	25·8	6·122	82·80	G. S. J.	936·76	·36892	·36888	+·00004	·36890	
,, ,,	15 24	2·7102	1·54	26·3	,,	5·620	82·85	26 35 50	10 49 16	26·2	5·702	82·85	G. S. J.	936·25	·36855	·36853	+·00002	·36854	
,, 31	12 43	2·7073	1·54	25·1	0·0	6·432	82·72	26 35 16	10 48 57	25·3	6·265	82·72	G. S. J.	936·57	·36898	·36898	·00000	·36898	
,, ,,	15 19	2·7087	1·54	25·9	,,	5·790	82·77	26 35 51	10 49 15	25·6	5·970	82·77	G. S. J.	936·55	·36877	·36875	+·00002	·36876	
FEB. 7	13 13	2·7062	1·54	25·2	+ 0·2	6·770	82·42	26 34 25	10 48 39	25·5	6·635	82·42	G. S. J.	936·81	·36922	·36920	+·00002	·36921	
,, ,,	15 22	2·7083	1·55	26·0	,,	6·107	82·45	26 35 15	10 49 1	25·7	6·252	82·45	G. S. J.	936·55	·36888	·36886	+·00002	·36887	
,, 14	12 35	2·7073	1·55	26·6	+ 0·1	7·072	82·52	26 32 35	10 47 55	26·9	6·952	82·52	G. S. J.	936·55	·36926	·36926	·00000	·36926	
,, ,,	15 14	2·7100	1·54	27·7	,,	5·932	82·55	26 34 2	10 48 34	27·3	6·155	82·55	G. S. J.	936·38	·36879	·36877	+·00002	·36878	·369062
,, 21	13 19	2·7068	1·55	26·5	0·0	6·820	83·00	26 33 21	10 48 15	26·5	6·657	83·00	G. S. J.	936·83	·36926	·36925	+·00001	·36925	
,, ,,	15 10	2·7088	1·52	27·0	,,	5·937	83·00	26 34 16	10 48 43	26·7	6·175	83·00	G. S. J.	936·59	·36892	·36888	+·00004	·36890	
,, 28	12 38	2·7074	1·53	26·8	+ 0·1	6·590	83·02	26 32 52	10 48 4	27·2	6·552	83·02	A.	936·72	·36921	·36919	+·00002	·36920	
,, ,,	13 58	2·7092	1·55	28·0	,,	6·365	83·05	26 32 26	10 48 2	27·7	6·455	83·05	A.	936·40	·36906	·36901	+·00005	·36903	
MAR. 7	12 25	2·7076	1·53	26·8	− 0·1	6·502	83·42	26 33 25	10 48 25	26·8	6·420	83·42	A.	936·76	·36916	·36911	+·00005	·36913	
,, ,,	14 51	2·7095	1·55	27·7	,,	5·630	83·45	26 34 30	10 48 47	27·7	5·880	83·45	A.	936·79	·36877	·36874	+·00003	·36875	
,, 14	11 55	2·7078	1·55	27·5	+ 0·1	6·355	83·90	26 32 53	10 48 7	27·5	6·265	83·90	A.	936·81	·36917	·36915	+·00002	·36916	
,, ,,	13 1	2·7082	1·55	27·5	,,	6·077	83·90	26 33 28	10 48 32	27·5	6·195	83·90	A.	936·89	·36906	·36898	+·00008	·36902	·369034
,, 21	12 55	2·7078	1·53	27·1	− 0·1	6·295	84·20	26 33 30	10 48 16	27·2	6·227	84·20	G. S. J.	936·79	·36910	·36910	·00000	·36910	
,, ,,	15 18	2·7095	1·53	27·5	,,	5·762	84·20	26 34 20	10 48 38	27·2	5·822	84·20	G. S. J.	936·55	·36882	·36880	+·00002	·36881	
,, 28	12 49	2·7081	1·53	28·1	− 0·5	6·977	84·75	26 31 7	10 47 30	28·1	6·825	84·75	G. S. J.	936·53	·36933	·36929	+·00004	·36931	
,, ,,	14 58	2·7098	1·54	28·4	,,	6·080	84·75	26 32 7	10 47 47	28·2	6·355	84·75	G. S. J.	936·25	·36900	·36899	+·00001	·36899	

* The monthly and annual means corrected for diurnal variation appear in table VIII.

1917 Date.	Civil time, mean.	Vibration magnet. Time of one vibraton.	Effect of 90° torsion.	Temperature.	Rate of chronometer.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Angle of deflection of magnet marked 7. Distance. 22·5 cms.	30·0 cms.	Temperature.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Observer.	Calculated results in C. G. S. unit. Values of m.	Values of H. From deflection at distance. 22·5 cms. ($H_{22·5}$).	30·0 cms. ($H_{30·0}$).	Difference. $H_{22·5}-H_{30·0}$	Mean. $\frac{H_{22·5}+H_{30·0}}{2}$	* Observed monthly mean values of H.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	h. m.	S.	Sc. div.	°	S.	cms.	°	° ′ ″	° ′ ″	°	cms.	°							
April 4	12 59	2·7107	1·52	30·6	− 0·3	5·981	85·85	26 30 42	10 47 20	30·6	5·855	85·85	G. S. J.	936·68	0·36902	0·36898	+·00004	0·36900	
„ „	15 18	2·7120	1·54	30·2	„	5·289	85·85	26 31 41	10 47 33	30·4	5·517	85·85	G. S. J.	936·27	·36871	·36871	·00000	·36871	
„ 11	12 43	2·7085	1·53	29·1	− 0·5	6·521	86·65	26 31 1	10 47 21	29·1	6·319	86·65	G. S. J.	936·76	·36928	·36927	+·00001	·36927	
„ „	15 22	2·7102	1·54	29·0	„	5·742	86·65	26 32 5	10 47 43	29·0	5·882	86·65	G. S. J.	936·42	·36894	·36894	·00000	·36894	0·369049
„ 18	12 54	2·7093	1·53	29·5	− 0·5	6·302	87·00	26 30 56	10 47 36	29·4	6·117	87·00	G. S. J.	936·72	·36918	·36909	+·00009	·36913	
„ „	15 27	2·7107	1·54	29·3	„	5·470	87·00	26 32 13	10 47 49	29·3	5·593	87·00	G. S. J.	936·42	·36885	·36884	+·00001	·36884	
„ 25	12 49	2·7090	1·54	30·1	− 0·5	6·527	87·55	26 29 23	10 46 50	30·2	6·395	87·55	G. S. J.	936·66	·36938	·36933	+·00005	·36935	
„ „	15 15	2·7101	1·53	30·5	„	5·807	87·55	26 30 16	10 47 1	30·4	5·988	87·55	G. S. J.	936·59	·36915	·36915	·00000	·36915	
May 2	12 56	2·7121	1·52	29·8	− 0·7	4·740	88·17	26 32 56	10 47 57	30·0	4·720	88·17	G. S. J.	936·38	·36855	·36859	−·00004	·36857	
„ „	15 24	2·7154	1·54	30·2	„	3·305	88·15	26 35 19	10 49 8	30·1	3·553	88·15	G. S. J.	936·10	·36789	·36784	+·00005	·36786	
„ 9	12 39	2·7101	1·55	30·9	− 0·5	6·410	88·35	26 29 0	10 46 35	30·7	6·265	88·35	G. S. J.	936·44	·36928	·36928	·00000	·36928	
„ „	15 15	2·7118	1·54	31·0	„	5·647	88·30	26 29 58	10 46 58	30·9	5·850	88·30	G. S. J.	936·18	·36894	·36893	+·00001	·36893	
„ 16	13 14	2·7093	1·53	30·1	− 0·3	6·605	88·75	26 29 6	10 46 36	30·2	6·322	88·75	G. S. J.	936·44	·36936	·36935	+·00001	·36935	·368910
„ „	15 21	2·7128	1·54	30·5	„	4·270	88·70	26 31 37	10 47 31	30·4	5·142	88·70	G. S. J.	936·05	·36863	·36864	−·00001	·36863	
„ 23	12 33	2·7094	1·55	30·0	− 0·6	6·202	89·47	26 29 17	10 46 41	30·0	6·290	89·47	G. S. J.	936·40	·36933	·36933	·00000	·36933	
„ „	15 19	2·7104	1·54	30·2	„	5·845	89·45	26 29 46	10 46 56	30·1	6·050	89·45	G. S. J.	936·27	·36916	·36914	+·00002	·36915	
„ 30	13 6	2·7115	1·53	32·1	− 0·7	5·862	90·00	26 28 27	10 46 22	32·1	5·695	90·00	G. S. J.	936·40	·36914	·36913	+·00001	·36913	
„ „	15 18	2·7123	1·55	32·1	„	4·965	90·00	26 29 34	10 46 53	32·2	5·165	90·00	G. S. J.	936·48	·36889	·36886	+·00003	·36887	
June 6	12 55	2·7096	1·53	30·8	− 0·7	6·360	90·82	26 28 49	10 46 41	30·4	6·145	90·82	G. S. J.	936·53	·36939	·36933	+·00006	·36936	
„ „	15 24	2·7103	1·53	29·8	„	5·410	90·80	26 30 15	10 47 6	30·0	5·657	90·80	G. S. J.	936·31	·36909	·36907	+·00002	·36908	
„ 13	13 32	2·7075	1·54	28·2	− 2·2	6·475	89·90	26 30 28	10 47 0	28·4	6·392	89·90	G. S. J.	936·53	·36945	·36948	−·00003	·36946	
„ „	14 55	2·7096	1·53	28·5	„	5·525	89·85	26 31 1	10 47 18	28·6	5·956	89·85	G. S. J.	936·10	·36911	·36911	·00000	·36911	·369192
„ 20	12 35	2·7084	1·54	29·0	0·0	6·410	88·97	26 30 1	10 46 59	29·2	6·357	88·97	G. S. J.	936·55	·36939	·36938	+·00001	·36938	
„ „	15 22	2·7099	1·54	29·6	„	5·880	88·92	26 30 27	10 47 5	29·5	6·040	88·92	G. S. J.	936·33	·36916	·36916	·00000	·36916	
„ 27	12 58	2·7092	1·54	28·8	0·0	5·860	88·30	26 31 20	10 47 30	29·0	5·775	88·30	G. S. J.	936·55	·36913	·36912	+·00001	·36912	
„ „	15 23	2·7100	1·55	28·3	„	5·265	88·25	26 32 45	10 48 1	28·4	5·385	88·25	G. S. J.	936·38	·36888	·36887	+·00001	·36887	
July 4	13 4	2·7077	1·52	28·4	0·0	6·488	87·05	26 30 22	10 47 5	28·7	6·460	87·05	G. S. J.	936·63	·36944	·36943	+·00001	·36943	
„ „	15 26	2·7094	1·55	28·9	„	5·631	87·05	26 31 38	10 47 37	28·8	5·870	87·05	G. S. J.	936·53	·36911	·36909	+·00002	·36910	
„ 11	13 6	2·7091	1·54	29·7	0·0	6·875	86·70	26 28 52	10 46 35	29·9	6·706	86·70	G. S. J.	936·33	·36941	·36939	+·00002	·36940	
„ „	15 18	2·7104	1·52	30·0	„	5·788	86·70	26 30 32	10 47 11	29·9	5·995	86·70	G. S. J.	936·40	·36909	·36906	+·00003	·36907	
„ 18	13 18	2·7088	1·53	29·6	0·0	6·375	87·10	26 29 55	10 46 58	29·9	6·232	87·10	G. S. J.	936·68	·36933	·36931	+·00002	·36932	·369196
„ „	15 17	2·7108	1·53	30·0	„	5·488	87·10	26 30 53	10 47 20	29·9	5·755	87·10	G. S. J.	936·33	·36899	·36896	+·00003	·36897	
„ 25	13 30	2·7082	1·52	28·8	0·0	6·480	87·10	26 30 28	10 47 6	29·0	6·338	87·10	G. S. J.	936·63	·36936	·36937	−·00001	·36936	
„ „	15 21	2·7107	1·52	28·8	„	5·745	87·10	26 31 28	10 47 35	28·8	5·940	87·10	G. S. J.	936·03	·36894	·36891	+·00003	·36892	

Aug.	1	12	57	2·7121	1·54	29·0	0·0	4·830	86·65	26	33	26	10	48	11	29·0	4·835	86·65	G. S. J.	936·12	·36853	·36854	−·00001	·36853		
,,	,,	15	23	2·7119	1·55	28·6	,,	4·597	86·60	26	34	26	10	48	37	28·7	4·585	86·60	G. S. J.	936·33	·36844	·36845	−·00001	·36844		
,,	8	12	53	2·7079	1·53	28·0	+ 0·5	6·662	86·80	26	30	41	10	47	15	28·0	6·615	86·80	G. S. J.	936·40	·36940	·36939	+·00001	·36939		
,,	,,	15	25	2·7100	1·54	27·7	,,	5·462	86·75	26	32	42	10	47	59	27·8	5·852	86·75	G. S. J.	936·12	·36888	·36888	·00000	·36888		
,,	15	12	53	2·7140	1·54	29·0	− 0·2	3·302	86·55	26	36	29	10	49	27	29·0	3·412	86·55	G. S. J.	936·33	·36794	·36793	+·00001	·36793	·368486	
,,	,,	15	27	2·7151	1·53	29·5	,,	3·005	86·60	26	36	38	10	49	28	29·3	3·252	86·60	G. S. J.	936·14	·36780	·36779	+·00001	·36779		
,,	22	12	47	2·7137	1·55	28·8	0·0	3·207	87·17	26	36	48	10	49	38	28·8	3·235	87·17	G. S. J.	936·46	·36796	·36793	+·00003	·36794		
,,	,,	15	13	2·7149	1·55	28·5	,,	2·520	87·15	26	38	2	10	50	3	28·6	2·705	87·15	G. S. J.	936·25	·36765	·36764	+·00001	·36764		
,,	29	13	40	2·7068	1·53	26·0	+ 0·1	6·392	86·20	26	33	21	10	48	12	26·0	6·195	86·20	G. S. J.	936·57	·36927	·36927	·00000	·36927		
,,	,,	15	28	2·7077	1·51	26·0	,,	5·730	86·15	26	34	16	10	48	34	25·9	5·935	86·15	G. S. J.	936·53	·36906	·36905	+·00001	·36905		
Sept.	5	12	46	2·7074	1·55	26·9	+ 0·6	6·827	85·60	26	31	8	10	47	27	27·2	6·860	85·60	G. S. J.	936·29	·36940	·36938	+·00002	·36939		
,,	,,	15	22	2·7131	1·52	27·7	,,	3·275	85·60	26	36	42	10	49	30	27·5	4·177	85·60	G. S. J.	936·05	·36807	·36806	+·00001	·36806		
,,	12	12	24	2·7080	1·53	27·8	+ 0·8	6·445	85·40	26	31	25	10	47	35	27·9	6·502	85·40	G. S. J.	936·50	·36930	·36927	+·00003	·36928		
,,	,,	15	14	2·7093	1·54	28·3	,,	6·025	85·40	26	32	5	10	47	42	28·1	6·080	85·40	G. S. J.	936·35	·36907	·36908	−·00001	·36907	·368967	
,,	19	13	18	2·7096	1·52	28·1	+ 0·8	5·468	85·35	26	33	42	10	48	26	28·2	5·286	85·35	G. S. J.	936·72	·36883	·36881	+·00002	·36882		
,,	,,	14	57	2·7102	1·54	27·7	,,	5·070	85·30	26	34	36	10	48	41	28·0	4·997	85·30	G. S. J.	936·59	·36865	·36865	·00000	·36865		
,,	26	12	52	2·7035	1·52	28·9	+ 0·6	6·638	86·10	26	30	14	10	47	1	29·0	6·442	86·10	G. S. J.	936·48	·36935	·36936	−·00001	·36935		
,,	,,	15	15	2·7095	1·54	29·0	,,	5·937	86·10	26	31	2	10	47	19	29·2	6·027	86·10	G. S. J.	936·42	·36912	·36913	−·00001	·36912		
Oct.	3	12	26	2·7104	1·54	28·6	+ 0·6	5·406	86·07	26	35	26	10	48	25	28·6	5·203	86·07	G. S. J.	936·61	0·36877	0·36871	+·00006	0·36874		
,,	,,	15	22	2·7121	1·56	27·9	,,	3·950	86·02	26	35	15	10	48	55	28·2	4·375	86·02	G. S. J.	936·18	·36831	·36832	−·00001	·36831		
,,	10	12	28	2·7075	1·53	27·5	+ 0·8	6·421	85·62	26	32	5	10	47	45	27·6	6·219	85·62	G. S. J.	936·70	·36929	·36928	+·00001	·36928		
,,	,,	15	11	2·7093	1·52	27·9	,,	5·500	85·60	26	33	20	10	48	10	27·7	5·668	85·60	G. S. J.	936·53	·36894	·36895	−·00001	·36894		
,,	17	12	36	2·7094	1·52	29·2	+ 0·2	6·260	86·15	26	30	39	10	47	12	29·5	6·089	86·15	G. S. J.	936·48	·36917	·36916	+·00001	·36916	0·368933	
,,	,,	15	13	2·7111	1·54	30·1	,,	5·378	86·15	26	31	21	10	47	33	29·9	5·551	86·15	G. S. J.	936·40	·36890	·36887	+·00003	·36888		
,,	24	12	43	2·7083	1·52	28·6	+ 0·4	6·401	86·67	26	30	40	10	47	17	28·8	6·212	86·67	G. S. J.	936·59	·36933	·36930	+·00003	·36931		
,,	,,	15	12	2·7098	1·54	28·8	,,	5·243	86·72	26	32	36	10	47	53	28·6	5·435	86·72	G. S. J.	936·55	·36894	·36896	−·00002	·36895		
,,	31	12	31	2·7081	1·52	26·8	+ 0·4	5·810	86·17	26	33	54	10	48	22	27·0	5·662	86·17	G. S. J.	936·68	·36902	·36904	−·00002	·36903		
,,	,,	15	17	2·7099	1·53	27·6	,,	4·781	86·17	26	34	38	10	48	42	27·4	4·926	86·17	G. S. J.	936·57	·36873	·36873	·00000	·36873		
Nov.	7	12	43	2·7089	1·52	29·0	+ 0·1	6·367	85·82	26	30	40	10	47	13	29·1	6·239	85·82	G. S. J.	936·53	·36926	·36925	+·00001	·36925		
,,	,,	15	22	2·7098	1·53	29·3	,,	5·958	85·82	26	30	50	10	47	11	29·3	6·098	85·82	G. S. J.	936·31	·36911	·36913	−·00002	·36912		
,,	15	12	57	2·7084	1·52	27·0	0·0	5·755	85·20	26	33	42	10	48	18	27·1	5·546	85·20	G. S. J.	936·59	·36901	·36902	−·00001	·36901		
,,	,,	15	19	2·7102	1·52	27·7	,,	4·990	85·22	26	34	21	10	48	40	27·6	5·122	85·22	G. S. J.	936·46	·36871	·36869	+·00002	·36870		
,,	21	13	10	2·7089	1·55	28·2	+ 0·3	5·967	85·30	26	32	15	10	47	50	28·3	5·845	85·30	G. S. J.	936·59	·36909	·36907	+·00002	·36908	·368922	
,,	,,	15	24	2·7098	1·53	28·1	,,	5·441	85·30	26	32	53	10	48	1	28·0	5·577	85·30	G. S. J.	936·33	·36891	·36892	−·00001	·36891		
,,	28	12	55	2·7097	1·54	27·5	+ 0·2	5·226	84·90	26	33	58	10	48	29	28·1	5·191	84·90	G. S. J.	936·57	·36875	·36873	+·00002	·36874		
,,	,,	15	18	2·7115	1·54	28·6	,,	4·923	84·90	26	34	9	10	48	21	28·4	4·956	84·90	G. S. J.	936·25	·36855	·36860	−·00005	·36857		
Dec.	5	13	11	2·7082	1·52	26·5	0·0	5·687	84·20	26	34	10	10	48	25	26·8	5·635	84·20	G. S. J.	936·59	·36897	·36899	−·00002	·36898		
,,	,,	15	25	2·7093	1·53	27·6	,,	5·537	84·22	26	33	51	10	48	23	27·3	5·547	84·22	G. S. J.	936·50	·36890	·36890	·00000	·36890		
,,	12	14	10	2·7086	1·44	27·3	+ 0·4	5·902	83·75	26	33	37	10	48	22	27·5	5·670	83·75	G. S. J.	936·72	·36899	·36897	+·00002	·36898		
,,	,,	15	20	2·7108	1·44	28·0	,,	5·102	83·77	26	33	46	10	48	21	27·7	5·400	83·77	G. S. J.	936·16	·36871	·36871	·00000	·36871	·368799	
,,	19	13	37	2·7095	1·44	25·8	+ 0·5	5·047	83·35	26	36	45	10	49	37	25·9	4·915	83·35	A.	936·57	·36854	·36850	+·00004	·36852		
,,	,,	14	47	2·7108	1·46	26·0	,,	4·590	83·32	26	36	34	10	49	36	26·0	4·795	83·32	A.	936·16	·36838	·36834	+·00004	·36836		
,,	26	12	54	2·7074	1·46	26·7	+ 0·2	6·322	82·90	26	33	25	10	48	18	27·0	6·020	82·90	A.	936·33	·36916	·36915	+·00001	·36915		
,,	,,	14	13	2·7093	1·45	27·2	,,	5·212	82·90	26	34	21	10	48	51	27·1	5·435	82·90	A.	936·61	·36883	·36876	+·00007	·36879		
																			Mean for the year =	936·49	..	..	+·000015			

The mean * observed value of the horizontal force for the year 1917 = 0·368938

* The monthly and annual means corrected for diurnal variation appear in table VIII.

Absolute Magnetic Observations, Alibag—Table Ib.

Observations of vibration and deflection, taken with magnetometer no. 3 (Cambridge Scientific Instrument Co.) for the determination of absolute horizontal force.

1917.

1917 Date.	Civil time, mean.	Vibration magnet. Time of one vibration	Effect of 90° torsion.	Temperature.	Rate of chronometer.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Angle of deflection. Distance. 23 cms.	30 cms.	Temperature.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Observer.	Calculated results in C. G. S. unit. Values of m.	Values of H. From deflection at distance. 23 cms. (H_{23}).	30 cms. (H_{30}).	Difference. $H_{23}-H_{30}$	Mean. $\frac{H_{23}+H_{30}}{2}$	* Observed monthly mean values of H.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	h. m.	S.	Sc. div.	°	S.	cms.	°	° ′ ″	° ′ ″	°	cms.	°							
JAN. 8	13 0	2·8850	1·89	25·9	+ 0·1	5·697	82·95	23 31 56	10 22 50	25·9	5·475	82·95	G. S. J.	905·98	0·36877	0·36870	+·00007	0·36873	
,, ,,	15 17	2·8864	1·86	26·0	,,	4·856	82·90	23 32 24	10 23 10	26·1	4·842	82·90	G. S. J.	905·82	·36852	·36842	+·00010	·36847	
,, 15	13 21	2·8848	2·02	26·5	+ 0·1	6·072	82·80	23 30 50	10 22 24	26·4	5·890	82·80	G. S. J.	905·94	·36893	·36885	+·00008	·36889	
,, ,,	15 25	2·8858	1·96	26·4	,,	5·680	82·80	23 30 42	10 22 27	26·5	5·695	82·80	G. S. J.	905·63	·36880	·36870	+·00010	·36875	0·368801
,, 22	13 5	2·8858	1·77	26·4	0·0	5·780	83·00	23 30 38	10 22 14	26·4	5·767	83·00	G. S. J.	905·54	·36882	·36877	+·00005	·36879	
,, ,,	15 20	2·8858	1·74	26·5	,,	5·597	83·00	23 30 49	10 22 27	26·6	5·555	83·00	G. S. J.	905·73	·36879	·36871	+·00008	·36875	
,, 29	13 13	2·8829	1·86	24·9	+ 0·1	6·497	82·80	23 30 53	10 22 30	24·9	6·425	82·80	G. S. J.	905·96	·36917	·36907	+·00010	·36912	
,, ,,	15 24	2·8844	1·87	25·0	,,	5·770	82·80	23 30 55	10 22 36	25·0	5·982	82·80	G. S. J.	905·57	·36897	·36885	+·00012	·36891	
FEB. 5	12 52	2·8826	2·04	24·2	+ 0·1	6·457	82·50	23 31 16	10 22 30	25·1	6·417	82·50	G. S. J.	905·98	·36908	·36903	+·00005	·36905	
,, ,,	15 23	2·8835	2·22	24·9	,,	6·075	82·45	23 30 46	10 22 26	25·0	6·172	82·45	G. S. J.	905·69	·36908	·36899	+·00009	·36903	
,, 12	13 29	2·8832	1·91	25·4	+ 0·1	6·592	82·40	23 30 20	10 22 9	25·8	6·437	82·40	G. S. J.	905·96	·36916	·36910	+·00006	·36913	
,, ,,	15 33	2·8843	1·93	25·8	,,	6·056	82·45	23 29 55	10 22 2	25·9	6·207	82·45	G. S. J.	905·61	·36910	·36902	+·00008	·36906	
,, 19	13 25	2·8863	1·80	27·4	0·0	5·650	82·90	23 30 47	10 22 22	27·5	5·262	82·90	G. S. J.	905·94	·36873	·36866	+·00007	·36869	·368956
,, ,,	15 31	2·8873	1·85	27·7	,,	5·322	82·90	23 30 56	10 22 40	27·5	5·240	82·90	G. S. J.	905·82	·36861	·36848	+·00013	·36854	
,, 26	12 46	2·8842	1·97	25·8	0·0	5·870	82·95	23 30 30	10 22 21	25·6	6·275	82·95	A.	905·73	·36906	·36896	+·00010	·36901	
,, ,,	14 36	2·8836	1·88	26·0	,,	6·167	82·95	23 30 12	10 22 13	25·7	6·302	82·95	A.	905·94	·36919	·36909	+·00010	·36914	
MARCH 5	14 36	2·8883	1·85	27·8	− 0·2	4·955	83·50	23 30 31	10 22 26	27·5	5·000	83·50	A.	905·36	·36854	·36843	+·00011	·36848	
,, ,,	15 46	2·8874	1·93	28·1	,,	5·057	83·50	23 29 36	10 21 55	28·0	5·075	83·50	A.	905·46	·36874	·36865	+·00009	·36869	
,, 12	12 50	2·8834	1·93	27·0	+ 0·2	6·660	83·70	23 29 26	10 21 55	26·4	6·195	83·70	A.	906·13	·36933	·36922	+·00011	·36927	
,, ,,	14 8	2·8842	1·89	26·8	,,	5·927	83·70	23 29 12	10 21 39	26·5	6·072	83·70	A.	905·71	·36922	·36917	+·00005	·36919	
,, 19	12 4	2·8847	1·87	27·2	0·0	6·740	84·05	23 28 29	10 21 20	26·9	6·712	84·05	A.	905·52	·36925	·36921	+·00004	·36923	·368886
,, ,,	13 30	2·8862	1·87	27·1	,,	6·657	83·95	23 28 24	10 21 24	26·9	6·767	83·95	A.	905·04	·36905	·36898	+·00007	·36901	
,, 26	13 33	2·8883	2·01	27·8	− 0·5	6·300	84·50	23 29 13	10 21 41	27·4	6·127	84·50	G. S. J.	904·86	·36870	·36864	+·00006	·36867	
,, ,,	15 33	2·8892	1·95	27·7	,,	5 720	84·50	23 28 59	10 21 43	27·5	5·885	84·50	G. S. J.	904·54	·36860	·36850	+·00010	·36855	

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1917		Vibration magnet.				Corresponding mean reading of H. F. magnetograph.		Angle of deflection.				Corresponding mean reading of H. F. magnetograph.				Calculated results in C. G. S. unit.				
								Distance.								Values of H.				
Date.	Civil time, mean.	Time of one vibration.	Effect of 90° torsion.	Temperature.	Rate of chronometer.	Ordinate.	Thermometer.	23 cms.	30 cms.		Temperature.	Ordinate.	Thermometer.	Observer.	Values of m.	From deflection at distance.		Difference.	Mean.	*Observed monthly mean values of H.
																23 cms. (H_{23}).	30 cms. (H_{30}).	$H_{23}-H_{30}$.	$\frac{H_{23}+H_{30}}{2}$.	
1	2	3	4	5	6	7	8	9			10			11	12	13	14	15	16	17	18	19	20
	h. m.	S.	Sc. div.	°	S.	cms.	°	°	′	″	°	′	″	°	cms.	°							
Oct. 1	13 22	2·8889	1·70	27·8	+0·6	5·157	86·27	23	29	20	10	21	49	28·0	5·062	86·27	G. S. J.	904·92	0·36858	0·36849	+·00009	0·36853	
,, ,,	15 27	2·8904	1·74	27·9	,,	4·512	86·25	23	29	44	10	22	0	28·0	4·635	86·25	G. S. J.	904·57	·36834	·36826	+·00008	·36830	
,, 8	13 14	2·8861	1·71	27·0	+0·8	6·427	85·52	23	28	12	10	21	16	27·0	6·183	85·52	G. S. J.	905·02	·36909	·36903	+·00006	·36906	
,, ,,	15 26	2·8882	1·72	27·0	,,	5·715	85·50	23	28	24	10	21	16	27·2	5·785	85·50	G. S. J.	904·42	·36878	·36874	+·00004	·36876	
,, 15	13 8	2·8886	1·73	29·3	+0·4	6·040	86·00	23	26	41	10	20	41	29·2	5·858	86·00	G. S. J.	904·75	·36895	·36888	+·00007	·36891	
,, ,,	15 24	2·8898	1·80	29·2	,,	5·286	86·00	22	26	33	10	20	49	29·4	5·396	86·00	G. S. J.	904·42	·36878	·36865	+·00013	·36871	0·368637
,, 23	12 33	2·8881	1·99	29·7	+0·3	6·462	86·75	23	26	17	10	20	23	28·7	6·288	86·75	G. S. J.	904·69	·36913	·36910	+·00003	·36911	
,, ,,	15 23	2·8895	1·94	28·8	,,	5·481	86·75	23	27	28	10	20	55	28·7	5·638	86·75	G. S. J.	904·44	·36873	·36868	+·00005	·36870	
,, 29	13 19	2·8897	2·36	27·0	+0·3	4·188	86·40	23	31	34	10	22	36	26·9	4·194	86·40	G. S. J.	904·75	·36818	·36815	+·00003	·36816	
,, ,,	15 28	2·8907	2·51	27·2	,,	3·895	86·40	23	30	27	10	22	27	27·0	4·348	86·40	G. S. J.	904·25	·36820	·36806	+·00014	·36813	
Nov. 5	13 0	2·8879	1·74	28·6	+0·2	6·518	85·65	23	26	32	10	20	33	28·8	6·239	85·65	G. S. J.	904·67	·36905	·36899	+·00006	·36902	
,, ,,	15 15	2·8893	1·76	28·8	,,	5·760	85·67	23	26	37	10	20	37	28·7	5·937	85·67	G. S. J.	904·29	·36888	·36881	+·00007	·36884	
,, 12	13 4	2·8862	1·87	27·8	+0·2	7·005	85·40	23	28	1	10	21	22	27·4	6·046	85·40	G. S. J.	905·21	·36912	·36900	+·00012	·36906	
,, ,,	15 26	2·8894	1·89	27·6	,,	5·263	85·40	23	28	35	10	21	22	27·5	5·565	85·40	G. S. J.	904·29	·36861	·36857	+·00004	·36859	
,, 19	12 49	2·8870	2·02	27·8	+0·1	6·082	85·22	23	28	51	10	21	27	27·5	5·763	85·22	G. S. J.	905·13	·36889	·36887	+·00002	·36888	·368725
,, ,,	15 27	2·8906	2·02	27·8	,,	4·352	85·20	23	30	0	10	21	56	27·8	4·815	85·20	G. S. J.	904·42	·36826	·36823	+·00003	·36824	
,, 26	12 53	2·8883	2·14	27·3	+0·1	5·621	84·92	23	29	20	10	21	50	27·6	5·202	84·92	G. S. J.	904·84	·36861	·36853	+·00008	·36857	
,, ,,	15 13	2·8889	2·40	27·7	,,	5·218	84·95	23	28	36	10	21	30	27·7	5·225	84·95	G. S. J.	904·50	·36865	·36856	+·00009	·36860	
Dec. 3	13 17	2·8873	1·73	26·5	+0·1	5·760	84·40	23	29	30	10	21	41	26·7	5·796	84·40	G. S. J.	904·82	·36877	·36873	+·00004	·36875	
,, ,,	15 22	2·8882	1·71	26·8	,,	4·965	84·40	23	29	45	10	21	48	26·7	5·250	84·40	G S J.	904·69	·36864	·36861	+·00003	·36862	
,, 10	13 26	2·8869	1·85	26·8	+0·2	6·062	83·80	23	28	50	10	21	34	26·6	5·900	83·80	G. S. J.	904·84	·36893	·36885	+·00008	·36889	
,, ,,	15 0	2·8876	1·90	26·7	,,	5·585	83·82	23	22	50	10	21	32	26·7	5·727	83·82	G. S. J.	904·59	·36881	·36875	+·00006	·36878	·368787
,, 18	14 2	2·8877	1·88	26·2	+0·5	6·237	83·40	23	28	42	10	21	37	25·9	5·605	83·40	A.	904·29	·36885	·36874	+·00011	·36879	
,, ,,	15 52	2·8892	1·92	26·3	,,	2·805	83·40	23	30	55	10	22	50	26·0	4·270	83·40	A.	904·63	·36837	·36819	+·00018	·36828	
,, 31	13 53	2·8839	1·89	25·6	+0·3	6·255	82·40	23	29	11	10	21	40	25·6	6·096	82·40	A.	905·38	·36925	·36919	+·00006	·36922	
,, ,,	15 18	2·8853	1·86	25·9	,,	5·802	82·45	23	29	47	10	21	56	25·7	5·967	82·45	A.	905·23	·36901	·36894	+·00007	·36897	
																	Mean for the year=	904·87	....	....	+·000076		

The mean* observed value of the horizontal force for the year 1917=0·368736

* The monthly and annual means corrected for diurnal variation appear in table VIIIa.

Absolute Magnetic Observations, Alibag—Table IIa.

OBSERVATIONS OF ABSOLUTE DECLINATION, 1917.

Taken with magnetometer no. 7 (T. Cooke and Sons.)

1917		Alibag civil time.	Mean readings.				Torsion.		Observer.	Corresponding reading of declination magnetograms.	Absolute easterly declination corrected for torsion.	Monthly mean.	
			Collimator magnet.		Horizontal circle with telescope pointed to								
Date.			Scale apparently		Scale of collimator magnet.	Kennery light house.	Mean.	Effect of 90°.				Corresponding reading of declination magnetograms.	*Observed absolute easterly declination.
			Erect.	Inverted.									
1		2	3	4	5	6	7	8	9	10	11	12	13
		h. m.	Sc. div.	Sc. div.	° ′ ″	° ′ ″	·°	Sc. div.		Cms.	° ′ ″	Cms.	° ′ ″
Jan.	4	12 36	55·6	..	85 3 10	222 23 50	0	..	G. S. J.	3·865	0 32 45		
,,	11	12 26	55·6	..	85 4 35	222 23 45	0	..	G. S. J.	4·030	0 34 15		
,,	18	12 31	55·6	..	85 4 45	222 23 45	0	..	G. S. J.	4·050	0 34 25	3·939	0 33 17
,,	25	12 26	55·6	..	85 1 55	222 23 35	0	..	G. S. J.	3·810	0 31 45		
Feb.	1	12 41	55·6	..	85 4 5	222 23 40	0	..	G. S. J.	4·010	0 33 50		
,,	8	12 16	55·6	..	85 4 30	222 23 35	0	..	G. S. J.	4·055	0 34 20		
,,	16	12 39	55·6	..	85 4 45	222 23 45	0	..	G. S. J.	4·095	0 34 25	4·061	0 34 16
,,	22	11 53	55·6	..	85 4 45	222 23 40	0	..	G. S. J.	4·085	0 34 30		
Mar.	1	11 40	55·6	..	85 3 55	222 23 45	0	..	A.	3·925	0 33 35		
,,	9	11 40	55·6	..	85 2 50	222 24 0	0	..	A.	3·850	0 32 15		
,,	15	12 17	55·6	..	85 2 57	222 23 50	0	..	A.	3·870	0 32 32	3·813	0 31 59
,,	22	12 3	55·6	..	85 0 5	222 23 40	0	..	G. S. J.	3·580	0 29 50		
,,	29	12 16	55·6	..	85 2 0	222 23 40	0	..	G. S. J.	3·840	0 31 45		
April	5	12 1	55·6	..	85 1 10	222 23 50	0	..	G. S. J.	3·720	0 30 45		
,,	12	12 48	55·6	..	85 1 35	222 23 45	0	..	G. S. J.	3·742	0 31 15		
,,	19	12 2	55·6	..	85 2 15	222 23 35	0	..	G. S. J.	3·807	0 32 5	3·717	0 31 6
,,	26	12 40	55·6	..	85 0 30	222 23 35	0	..	G. S. J.	3·609	0 30 20		
May	3	12 17	55·6	..	85 1 10	222 23 40	0	..	G. S. J.	3·630	0 30 55		
,,	10	12 45	55·6	..	85 1 50	222 23 45	0	..	G. S. J.	3·700	0 31 30		
,,	17	12 38	55·6	..	85 0 10	222 23 35	0	..	G. S. J.	3·550	0 30 0	3·628	0 30 41
,,	24	12 37	55·6	..	85 0 55	222 23 45	0	..	G. S. J.	3·630	0 30 35		
,,	31	12 29	55·6	..	85 0 40	222 23 40	0	..	G. S. J.	3·630	0 30 25		
June	7	12 42	55·6	..	85 1 10	222 23 35	0	..	G. S. J.	3·645	0 31 0		
,,	14	12 3	55·6	..	85 1 15	222 23 30	0	..	G. S. J.	3·665	0 31 10		
,,	21	12 9	55·6	..	85 0 15	222 23 35	0	..	G. S. J.	3·560	0 30 5	3·637	0 30 50
,,	28	12 38	55·6	..	85 1 20	222 23 40	0	..	G. S. J.	3·680	0 31 5		
July	5	12 59	55·6	..	85 1 25	222 23 40	0	..	G. S. J.	3·707	0 31 10		
,,	12	12 38	55·6	..	85 1 45	222 23 45	0	..	G. S. J.	3·750	0 31 25		
,,	19	12 49	55·6	..	85 2 20	222 23 50	0	..	G. S. J.	3·792	0 31 55	3·732	0 31 15
,,	26	12 14	55·6	..	85 0 45	222 23 40	0	..	G. S. J.	3·680	0 30 30		
Aug.	3	11 49	55·6	..	84 59 10	222 23 35	0	..	G. S. J.	3·530	0 29 0		
,,	10	12 28	55·6	..	84 59 30	222 23 35	0	..	G. S. J.	3·570	0 29 20		
,,	16	12 53	55·6	..	84 59 55	222 23 55	0	..	G. S. J.	3·580	0 29 25	3·561	0 29 9
,,	23	11 56	55·6	..	84 59 35	222 23 45	0	..	G. S. J.	3·590	0 29 15		
,,	31	11 30	55·6	..	84 58 55	222 23 35	0	..	G. S. J.	3·535	0 28 45		
Sept.	6	12 13	55·6	..	84 59 50	222 23 45	0	..	G. S. J.	3·575	0 29 30		
,,	13	12 48	55·6	..	84 58 25	222 23 50	0	..	G. S. J.	3·460	0 28 0		
,,	21	13 10	55·6	..	85 1 5	222 24 5	0	..	G. S. J.	3·660	0 30 25	3·586	0 29 31
,,	27	12 9	55·6	..	85 1 5	222 24 20	0	..	G. S. J.	3·650	0 30 10		
Oct.	5	11 35	55·6	..	85 0 45	222 24 0	0	..	G. S. J.	3·650	0 30 10		
,,	11	12 15	55·6	..	85 1 30	222 24 15	0	..	G. S. J.	3·700	0 30 40		
,,	18	12 30	55·6	..	84 59 35	222 24 20	0	..	G. S. J.	3·540	0 28 40	3·655	0 30 1
,,	26	12 46	55·6	..	85 1 25	222 24 15	0	..	G. S. J.	3·730	0 30 35		
Nov.	1	12 16	55·6	..	85 1 0	222 24 20	0	..	G. S. J.	3·682	0 30 5		
,,	8	12 34	55·6	..	85 1 50	222 24 30	0	..	G. S. J.	3·750	0 30 45		
,,	16	13 7	55·6	..	85 0 35	222 24 25	0	..	G. S. J.	3·662	0 29 35	3·722	0 30 16
,,	22	11 56	55·6	..	85 1 30	222 24 35	0	..	G. S. J.	3·720	0 30 20		
,,	29	12 34	55·6	..	85 1 50	222 24 40	0	..	G. S. J.	3·795	0 30 35		
Dec.	6	12 24	55·6	..	85 2 30	222 24 30	0	..	G. S. J.	3·875	0 31 25		
,,	13	13 9	55·6	..	85 1 5	222 24 20	0	..	G. S. J.	3·750	0 30 10		
,,	20	13 6	55·6	..	85 3 5	222 23 50	0	..	A.	3·935	0 32 40	3·835	0 31 15
,,	27	12 59	55·6	..	85 1 50	222 24 30	0	..	A.	3·780	0 30 45		

The mean* observed declination for the year 1917 = ° ′ ″ 0 31 8

* The monthly and annual means corrected for diurnal variation appear in table VIII.

Absolute Magnetic Observations, Alibag—Table IIb.

OBSERVATIONS OF ABSOLUTE DECLINATION, 1917.

Taken with magnetometer no. 3 (Cambridge Scientific Instrument Co.)

1917		Alibag civil time.	Mean readings.				Torsion.		Observer.	Corresponding reading of declination magnetograms.	Absolute easterly declination corrected for torsion.	Monthly mean.	
Date.			Collimator magnet. Scale apparently. Erect.	Collimator magnet. Scale apparently. Inverted.	Horizontal circle with telescope pointed to. Scale of collimator magnet.	Horizontal circle with telescope pointed to. Kennery light house.	Mean.	Effect of 90°.				Corresponding reading of declination mag. netograms.	*Observed absolute easterly declination.
1		2	3	4	5	6	7	8	9	10	11	12	13
		h. m.	Sc. div.	Sc. div.	° ′ ″	° ′ ″	°	Sc. div.		Cms.	° ′ ″	Cms.	° ′ ″
Jan.	4	13 9	34·92	34·22	276 1 25	53 23 10	0	..	G. S. J.	3·892	0 32 20		
,,	11	13 0	34·97	34·47	276 3 40	53 23 15	0	..	G. S. J.	4·057	0 34 19		
,,	18	13 1	35·00	34·30	276 3 20	53 22 45	0	..	G. S. J.	4·112	0 34 40	3·989	0 33 30
,,	25	13 35	35·00	34·22	276 0 55	53 22 40	20W·	0·66	G. S. J.	3·897	0 32 42		
Feb.	1	13 13	34·90	34·62	276 2 30	53 22 25	0	..	G. S. J.	3·992	0 33 46		
,,	8	12 50	35·00	34·55	276 2 40	53 22 35	0	..	G. S. J.	4·035	0 35 55		
,,	16	13 21	35·05	34·17	276 1 40	53 22 25	0	..	G. S. J.	4·035	0 33 30	4·020	0 33 40
,,	22	12 28	34·90	34·56	276 2 5	53 22 25	0	..	G. S. J.	4·017	0 33 28		
Mar.	1	12 8	35·00	34·55	276 0 55	53 22 35	0	..	A.	3·875	0 32 10		
,,	9	12 5	34·97	34·47	276 0 0	53 22 30	0	..	A.	3 820	0 31 24		
,,	15	12 45	35·00	33·90	275 58 45	53 22 10	0	..	A.	3·812	0 31 3	3·774	0 30 55
,,	22	12 53	34·92	34·42	275 57 45	53 22 50	0	..	G. S. J.	3·562	0 28 49		
,,	29	12 58	34·92	34·30	275 59 35	53 22 25	0	..	G. S. J.	3·800	0 31 11		
April	5	12 35	35·00	34·20	275 58 30	53 22 25	0	..	G. S. J.	3·720	0 30 16		
,,	12	13 16	34·95	34·05	275 59 10	53 22 45	0	..	G. S. J.	3·755	0 30 42		
,,	19	12 45	34·97	34·87	276 0 0	53 22 35	0	..	G. S. J.	3·797	0 30 56	3·736	0 30 32
,,	26	13 11	34·95	34·67	275 59 10	53 22 35	0	..	G. S. J.	3·673	0 30 16		
May	3	12 50	35·00	34·40	275 58 45	53 22 30	0	..	G. S. J.	3·632	0 30 14		
,,	10	13 22	34·90	34·35	276 0 0	53 22 20	0	..	G. S. J.	3·770	0 31 36		
,,	17	13 10	35·02	34·47	275 58 15	53 22 35	0	..	G. S. J.	3·605	0 29 36	3·645	0 30 16
,,	24	13 10	34·92	34·40	275 58 45	53 22 35	0	..	G. S. J.	3·635	0 30 5		
,,	31	13 2	34·97	35·02	275 58 50	53 22 25	0	..	G. S. J.	3·582	0 29 48		
June	7	13 9	34·95	34·80	275 59 20	53 22 20	0	..	G. S. J.	3·662	0 30 33		
,,	14	12 39	34·90	34·97	275 58 35	53 22 10	0	..	G. S. J.	3·587	0 29 47	3·599	0 29 47
,,	21	12 43	34·95	34·65	275 57 40	53 22 40	0	..	G. S. J.	3·500	0 28 42		
,,	28	13 17	35·02	34·97	275 59 30	53 22 50	0	..	G. S. J.	3·647	0 30 7		
July	5	13 29	34·95	34·77	275 59 35	53 22 40	0	..	G. S. J.	3·718	0 30 30		
,,	12	13 12	34·95	34·97	275 59 35	53 22 55	0	..	G. S. J.	3·731	0 30 4		
,,	19	13 19	35·05	35·10	276 1 5	53 23 0	0	..	G. S. J.	3·812	0 31 28	3·734	0 30 28
,,	26	12 44	34·85	35·15	275 59 30	53 22 55	10W·	0·69	G. S. J.	3·676	0 29 52		
Aug.	3	12 47	35·02	33·95	275 57 20	53 23 20	0	..	G. S. J.	3·512	0 28 26		
,,	10	13 15	34·87	33·95	275 58 15	53 23 20	0	..	G. S. J.	3·590	0 29 13		
,,	16	13 24	34·95	33·60	275 57 45	53 23 30	0	..	G. S. J.	3·617	0 28 57	3·554	0 28 34
,,	23	12 31	34·95	33·40	275 57 35	53 23 35	0	..	G. S. J.	3·582	0 28 53		
,,	31	12 41	34·90	33·60	275 55 50	53 23 10	0	..	G. S. J.	3·470	0 27 19		
Sept.	6	12 49	34·90	33·90	275 57 10	53 23 10	0	..	G. S. J.	3·552	0 28 22		
,,	13	13 16	35·05	33·55	275 56 50	53 23 30	0	..	G. S. J.	3·523	0 28 11		
,,	21	13 44	34·95	35·02	276 0 0	53 23 35	0	..	G. S. J.	3·695	0 29 47	3·601	0 28 51
,,	27	12 54	34·92	35·17	275 59 30	53 23 35	0	..	G. S. J.	3·634	0 29 6		
Oct.	5	12 0	34·92	35·25	275 59 25	53 23 20	0	..	G. S. J.	3·612	0 29 12		
,,	11	12 2	34·95	35·32	276 0 5	53 23 40	0	..	G. S. J.	3·671	0 29 29		
,,	18	12 59	34·95	35·07	275 59 5	53 23 45	0	..	G. S. J.	3·561	0 28 38	3·644	0 29 21
,,	26	13 13	34·97	35·05	276 0 10	53 23 25	0	..	G. S. J.	3·731	0 30 5		
Nov.	1	12 48	34·90	35·12	275 59 40	53 23 30	0	..	G. S. J.	3·676	0 29 22		
,,	8	13 5	35·00	34·97	275 59 35	53 22 50	0	..	G. S. J.	3·792	0 30 11		
,,	16	13 38	34·97	34·95	275 58 20	53 22 55	0	..	G. S. J.	3·670	0 28 51	3·738	0 29 49
,,	22	12 32	34·90	35·65	276 0 25	53 23 10	0	..	G. S. J.	3·747	0 29 58		
,,	29	13 4	35·00	35·37	276 0 45	53 23 0	10E·	0·45	G. S. J.	3·806	0 30 43		
Dec.	6	12 59	34·92	34·80	276 0 0	53 22 50	0	..	G. S. J.	3·875	0 30 59		
,,	13	13 38	34·90	33·85	275 59 5	53 23 0	0	..	G. S. J.	3·787	0 30 30	3·836	0 30 55
,,	20	13 25	34·87	35·07	276 1 15	53 22 30	0	..	A.	3·910	0 31 59		
,,	27	13 20	34·95	35·55	276 0 30	53 23 10	0	..	A.	3·772	0 30 11		

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The mean* observed declination for the year 1917 = 0 30 33

* The monthly and annual means corrected for diurnal variation appear in table VIIIa.

Absolute Magnetic Observations, Alibag—Table IIIa.

OBSERVATIONS OF INCLINATION, 1917.

Taken with inductor no. 41 by Schulze and galvanometer no. 200 by Plath.

1917 Date.		Alibag civil time (0 to 24 hours). At commencement.		At conclusion.		Observers.	Face of circle. East.		West.		Mean inclination.		*Monthly mean inclination.	
		h.	m.	h.	m.		°	′	°	′	°	′	°	′
JAN.	3	11	13	11	27	G. P. M. and G. S. J.	24	32·20	24	32·43	24	32·31		
,,	5	11	15	11	32	G. P. M. and G. S. J.	24	36·64	24	37·08	24	36·86		
,,	6	11	39	12	2	G. S. J. and G. P. M.	24	33·78	24	34·24	24	34·01		
,,	8	11	18	11	31	G. P. M. and G. S. J.	24	33·03	24	33·06	24	33·04		
,,	10	11	18	11	37	G. S. J. and G. P. M.	24	32·34	24	32·79	24	32·56		
,,	12	11	35	11	52	G. S. J. and G. P. M.	24	32·30	24	32·38	24	32·34		
,,	15	11	22	11	39	G. S. J. and G. P. M.	24	31·39	24	31·79	24	31·59		
,,	17	11	10	11	26	G. P. M. and G. S. J.	24	30·96	24	31·17	24	31·06		
,,	19	11	9	11	21	G. P. M. and G. S. J.	24	30·25	24	30·55	24	30·40	24	31·72
,,	20	11	49	12	12	G. S. J. and G. P. M.	24	31·28	24	31·77	24	31·52		
,,	22	10	54	11	7	G. P. M. and G. S. J.	24	29·88	24	30·14	24	30·01		
,,	24	11	15	11	33	G. S. J. and G. P. M.	24	30·83	24	31·16	24	30·99		
,,	26	11	31	11	49	G. S. J. and G. P. M.	24	30·17	24	30·50	24	30·33		
,,	27	11	15	11	29	G. P. M. and G. S. J.	24	30·11	24	30·36	24	30·23		
,,	29	11	24	11	41	G. S. J. and G. P. M.	24	30·35	24	30·39	24	30·37		
,,	31	10	59	11	12	G. P. M. and G. S. J.	24	29·64	24	30·19	24	29·91		
FEB.	2	11	12	11	26	G. P. M. and G. S. J.	24	30·49	24	30·66	24	30·57		
,,	2	11	36	11	51	G. P. M. and G. S. J.	24	30·13	24	30·27	24	30·20		
,,	5	11	12	11	26	G. P. M. and G. S. J.	24	30·70	24	30·50	24	30·60		
,,	7	11	13	11	28	G. S. J. and G. P. M.	24	30·79	24	31·40	24	31·09		
,,	9	11	39	11	57	G. S. J. and G. P. M.	24	31·54	24	31·71	24	31·62		
,,	10	11	36	11	51	G. S. J. and G. P. M.	24	31·87	24	32·18	24	32·02		
,,	12	11	26	11	42	G. S. J. and G. P. M.	24	31·56	24	32·15	24	31·85		
,,	14	10	57	11	10	G. P. M. and G. S. J.	24	30·31	24	30·07	24	30·19	24	31·50
,,	16	11	15	11	29	G. P. M. and G. S. J.	24	33·23	24	33·32	24	33·27		
,,	17	14	22	14	41	G. S. J. and G. P. M.	24	32·72	24	33·06	24	32·89		
,,	19	11	3	11	16	G. P. M. and G. S. J.	24	33·36	24	33·49	24	33·42		
,,	21	11	20	11	37	G. S. J. and G. P. M.	24	32·01	24	32·64	24	32·32		
,,	23	11	22	11	40	G. P. M.	24	30·62	24	31·13	24	30·87		
,,	24	11	18	11	33	G. P. M.	24	30·84	24	31·09	24	30·96		
,,	26	11	15	11	32	A. and G. P. M.	24	30·99	24	31·27	24	31·13		
,,	28	11	12	11	28	G. P. M. and A.	24	30·92	24	30·98	24	30·95		
MAR.	2	11	0	11	12	A. and G. P. M.	24	30·03	24	30·20	24	30·11		
,,	3	12	9	12	18	G. P. M. and A.	24	31·30	24	31·28	24	31·29		
,,	5	11	28	11	42	G. P. M. and A.	24	30·21	24	31·16	24	30·68		
,,	7	11	5	11	25	A. and G. P. M.	24	31·09	24	31·09	24	31·09		
,,	9	11	12	11	22	A. and G. P. M.	24	31·00	24	31·16	24	31·08		
,,	10	11	8	11	22	A. and G. P. M.	24	30·38	24	30·69	24	30·53		
,,	12	11	37	11	45	A. and G. P. M.	24	30·36	24	30·39	24	30·37		
,,	14	10	54	11	7	A. and G. P. M.	24	31·03	24	30·92	24	30·97		
,,	16	11	25	11	36	A. and G. P. M.	24	30·37	24	30·78	24	30·57	24	30·54
,,	17	11	22	11	35	A. and G. P. M.	24	30·68	24	30·86	24	30·77		
,,	19	11	2	11	14	G. P. M. and A.	24	31·12	24	31·41	24	31·26		
,,	21	11	26	11	43	G. S. J. and G. P. M.	24	30·40	24	30·34	24	30·37		
,,	23	11	36	11	53	G. S. J. and G. P. M.	24	30·70	24	31·20	24	30·95		
,,	24	11	9	11	24	G. P. M. and G. S. J.	24	29·46	24	29·50	24	29·48		
,,	26	11	18	11	34	G. S. J. and G. P. M.	24	30·98	24	31·20	24	31·09		
,,	28	10	59	11	11	G. P. M. and G. S. J.	24	29·80	24	30·07	24	29·93		
,,	30	10	58	11	10	G. P. M. and G. S. J.	24	28·46	24	28·67	24	28·56		
APRIL	2	11	0	11	12	G. P. M. and G. S. J.	24	29·93	24	30·38	24	30·15		
,,	4	11	26	11	42	G. S. J. and G. P. M.	24	32·16	24	32·29	24	32·22		
,,	6	11	29	11	47	G. S. J. and G. P. M.	24	32·65	24	33·20	24	32·92		
,,	7	11	14	11	28	G. P. M. and G. S. J.	24	31·82	24	32·06	24	31·94		
,,	9	11	17	11	36	G. S. J. and G. P. M.	24	31·63	24	32·11	24	31·87		
,,	11	11	21	11	34	G. P. M. and G. S. J.	24	30·96	24	31·09	24	31·02		
,,	13	11	7	11	18	G. P. M. and G. S. J.	24	30·27	24	30·98	24	30·62		
,,	14	11	27	11	47	G. S. J. and G. P. M.	24	30·05	24	30·37	24	30·21		
,,	16	10	56	11	7	G. P. M. and G. S. J.	24	31·07	24	31·23	24	31·15	24	31·02
,,	18	11	27	11	44	G. S. J. and G. P. M.	24	30·59	24	30·86	24	30·72		
,,	20	11	49	12	6	G. S. J. and G. P. M.	24	30·48	24	30·74	24	30·61		
,,	21	11	0	11	12	G. P. M. and G. S. J.	24	30·64	24	30·78	24	30·71		
,,	23	11	22	11	41	G. S. J. and G. P. M.	24	30·70	24	30·89	24	30·79		
,,	25	11	0	11	12	G. P. M. and G. S. J.	24	30·70	24	30·48	24	30·59		
,,	27	10	55	11	8	G. P. M. and G. S. J.	24	31·50	24	31·53	24	31·51		
,,	28	11	13	11	28	G. S. J. and G. P. M.	24	29·76	24	30·12	24	29·94		
,,	30	11	11	11	25	G. P. M. and G. S. J.	24	30·33	24	30·41	24	30·37		

* The monthly and annual means corrected for diurnal variation appear in table VIII.

1917 Date.		Alibag civil time (0 to 24 hours). At commencement. h.	m.	At conclusion. h.	m.	Observers.	Face of circle. East. °	′	West. °	′	Mean inclination. °	′	*Monthly mean inclination. °	′
MAY	2	11	32	11	52	G. S. J. and G. P. M.	24	33·81	24	34·23	24	34·02		
,,	4	11	37	11	56	G. S. J. and G. P. M.	24	33·74	24	33·89	24	33·81		
,,	5	11	8	11	22	G. P. M. and G. S. J.	24	31·39	24	31·91	24	31·65		
,,	7	11	27	11	48	G. S. J. and G. P. M.	24	32·36	24	32·91	24	32·63		
,,	9	11	0	11	16	G. P. M. and G. S. J.	24	29·60	24	29·81	24	29·70		
,,	11	11	15	11	28	G. P. M. and G. S J.	24	30·29	24	30·24	24	30·26		
,,	12	11	23	11	43	G. S. J. and G. P. M.	24	32·57	24	32·67	24	32·62		
,,	14	10	46	11	3	G. P. M. and G. S. J.	24	31·59	24	32·09	24	31·84		
,,	16	11	22	11	38	G. S. J. and G. P. M.	24	30·43	24	30·87	24	30·65	24	31·95
,,	18	11	23	11	38	G. P. M.	24	30·06	24	30·14	24	30·10		
,,	19	11	51	12	8	G. S. J. and G. P. M.	24	31·76	24	32·10	24	31·93		
,,	21	11	9	11	28	G. S. J. and G. P. M.	24	32·01	24	31·71	24	31·86		
,,	23	11	0	11	16	G. P. M. and G. S. J.	24	31·77	24	31·36	24	31·56		
,,	25	10	59	11	12	G. P. M. and G. S. J.	24	31·59	24	31·99	24	31·79		
,,	26	11	25	11	46	G. S. J. and G. P. M.	24	32·10	24	32·28	24	32·19		
,,	28	11	9	11	23	G. P. M. and G. S. J.	24	32·90	24	33·77	24	33·33		
,,	30	11	32	11	49	G. S. J. and G. P. M.	24	33·14	24	33·27	24	33·20		
JUNE	1	11	25	11	46	G. S. J. and G. P. M.	24	32·69	24	32·70	24	32·69		
,,	2	11	6	11	20	G. P. M. and G. S. J.	24	31·58	24	31·38	24	31·48		
,,	4	11	25	11	47	G. S. J. and G. P. M.	24	33·57	24	33·56	24	33·56		
,,	6	10	59	11	13	G. P. M. and G. S. J.	24	32·14	24	32·41	24	32·27		
,,	8	11	4	11	21	G. P. M. and G. S. J.	24	34·18	24	33·98	24	34·08		
,,	9	11	16	11	35	G. S. J. and G. P. M.	24	32·62	24	32·34	24	32·48		
,,	11	11	0	11	17	G. P. M. and G. S. J.	24	32·63	24	32·20	24	32·41		
,,	13	11	34	11	51	G. S. J. and G. P. M.	24	32·34	24	32·33	24	32·33		
,,	15	11	18	11	38	G. S. J. and G. P. M.	24	32·11	24	32·91	24	32·51		
,,	16	10	55	11	9	G. P. M. and G. S. J.	24	31·92	24	32·10	24	32·01	24	32·75
,,	18	11	7	11	27	G. S. J. and G. P. M.	24	32·77	24	33·14	24	32·95		
,,	20	10	52	11	7	G. P. M. and G. S. J.	24	31·86	24	31·90	24	31·88		
,,	22	10	54	11	8	G. P. M. and G. S. J.	24	31·61	24	31·58	24	31·59		
,,	23	11	34	11	52	G. S. J. and G. P. M.	24	32·43	24	32·23	24	32·33		
,,	25	10	59	11	19	G. P. M. and G. S. J.	24	34·83	24	35·38	24	35·10		
,,	27	11	11	11	32	G. S. J. and G. P. M.	24	33·28	24	34·03	24	33·65		
,,	29	11	43	12	5	G. S. J. and G. P. M.	24	33·07	24	33·69	24	33·38		
,,	30	11	30	11	59	G. P. M. and G. S. J.	24	32·86	24	32·91	24	32·88		
JULY	2	11	23	11	53	G. S. J. and R. N. V.	24	33·87	24	34·53	24	34·20		
,,	3	12	47	13	11	G. S. J. and R. N. V.	24	33·70	24	33·61	24	33·65		
,,	4	11	40	11	59	G. S. J. and R. N. V.	24	32·05	24	32·39	24	32·22		
,,	6	12	36	12	56	G. S. J. and R. N. V.	24	31·92	24	32·30	24	32·11		
,,	7	11	12	11	36	G. S. J. and R. N. V.	24	32·42	24	32·85	24	32·63		
,,	9	11	2	11	25	G. S. J. and R. N. V.	24	33·09	24	32·94	24	33·01		
,,	11	11	14	11	39	G. S. J. and R. N. V.	24	32·04	24	31·61	24	31·82		
,,	13	11	6	11	33	G. S. J. and R. N. V.	24	33·15	24	33·33	24	33·24		
,,	14	12	11	12	50	R. N. V. and G. S. J.	24	34·30	24	34·96	24	34·63	24	33·31
,,	16	11	24	11	46	G. S. J. and R. N. V.	24	33·41	24	33·68	24	33·54		
,,	18	11	18	11	50	R. N. V. and G. S. J.	24	32·45	24	33·02	24	32·73		
,,	20	11	23	11	58	R. N. V. and G. S. J.	24	32·77	24	33·00	24	32·88		
,,	21	11	41	11	58	G. S. J. and R. N. V.	24	32·82	24	33·10	24	32·96		
,,	23	11	39	12	6	R. N. V. and G. S. J.	24	34·10	24	34·26	24	34·18		
,,	25	11	10	11	29	G. S. J. and R. N. V.	24	32·74	24	33·59	24	33·16		
,,	27	11	10	11	29	G. S. J. and R. N. V.	24	33·01	24	33·49	24	33·25		
,,	28	11	25	11	58	R. N. V. and G. S. J.	24	34·83	24	34·66	24	34·74		
,,	30	11	20	11	41	G. S. J. and R. N. V.	24	34·48	24	34·70	24	34·59		
AUG.	1	10	57	11	12	G. P. M. and G. S. J.	24	34·76	24	35·15	24	34·95		
,,	3	10	55	11	9	G. P. M. and G. S. J.	24	33·46	24	33·50	24	33·48		
,,	4	11	21	11	39	G. S. J. and G. P. M.	24	32·64	24	32·19	24	32·41		
,,	6	11	6	11	20	G. P. M. and G. S. J.	24	32·82	24	32·73	24	32·77		
,,	8	11	23	11	41	G. S. J. and G. P. M.	24	32·90	24	32·81	24	32·85		
,,	10	11	12	11	33	G. S. J. and G. P. M.	24	34·37	24	34·34	24	34·35		
,,	11	11	3	11	18	G. P. M. and G. S. J.	24	36·30	24	36·80	24	36·55		
,,	13	11	14	11	40	G. S. J. and G. P. M.	24	34·01	24	34·37	24	34·19		
,,	15	10	52	11	7	G. P. M. and G. S. J.	24	37·65	24	37·73	24	37·69		
,,	17	10	55	11	10	G. P. M. and G. S. J.	24	34·44	24	34·58	24	34·51	24	34·70
,,	18	11	14	11	33	G. S. J. and G. P. M.	24	35·62	24	35·99	24	35·80		
,,	20	10	44	10	59	G. P. M. and G. S. J.	24	34·19	24	34·25	24	34·22		
,,	22	11	17	11	37	G. S. J. and G. P. M.	24	38·53	24	38·79	24	38·66		
,,	24	11	10	11	33	G. S. J. and G. P. M.	24	35·95	24	36·34	24	36·14		
,,	25	10	52	11	9	G. P. M. and G. S. J.	24	33·16	24	33·08	24	33·12		
,,	27	11	38	11	57	G. S. J. and G. P. M.	24	34·40	24	34·72	24	34·56		
,,	29	12	32	12	52	G. P. M. and G. S. J.	24	33·41	24	33·81	24	33·61		
,,	31	10	46	11	2	G. P. M. and G. S. J.	24	34·63	24	34·80	24	34·71		

*The monthly and annual means corrected for diurnal variation appear in table VIII.

1917 Date.	Alibag civil time (0 to 24 hours). At commencement.		At conclusion.		Observers.	Face of circle. East.		Face of circle. West.		Mean inclination.		* Monthly mean inclination.	
	h.	m.	h.	m.		°	′	°	′	°	′	°	′
SEPT. 1	11	45	12	1	G. S. J. and G. P. M.	24	32·57	24	32·86	24	32·71		
„ 3	10	45	11	3	G. P. M. and G. S. J.	24	34·70	24	34·73	24	34·71		
„ 5	11	14	11	34	G. S. J. and G. P. M.	24	33·05	24	33·19	24	33·12		
„ 7	11	20	11	40	G. S J. and G. P. M.	24	33·60	24	34·45	24	34·02		
„ 8	10	58	11	12	G. P. M. and G S. J.	24	33·67	24	33·80	24	33·73		
„ 10	11	13	11	32	G. S. J. and G P. M.	24	35·37	24	35·69	24	35·53		
„ 12	11	22	11	34	G P. M. and G. S. J.	24	33·87	24	34·15	24	34·01		
„ 14	11	48	12	7	G. P. M. and G. S. J.	24	33·88	24	34·01	24	33·94		
„ 15	11	39	12	0	G. S. J. and G. P. M.	24	33·14	24	33·49	24	33·31	24	33·41
„ 17	10	46	10	59	G. P. M. and G. S. J.	24	34·21	24	34·63	24	34·42		
„ 19	11	1	11	22	G. S. J. and G. P. M.	24	32·71	24	32·69	24	32·70		
„ 21	11	12	11	32	G. S. J. and G. P. M.	24	34·00	24	34·59	24	34·29		
„ 22	11	2	11	15	G. P. M. and G. S. J.	24	33·11	24	33·41	24	33·26		
„ 24	10	47	11	2	G. P. M. and G. S. J.	24	31·80	24	32·41	24	32·10		
„ 26	11	13	11	31	G. S. J. and G. P. M.	24	32·03	24	32·31	24	32·17		
„ 28	11	12	11	28	G. S. J. and G. P. M.	24	32·14	24	32·44	24	32·29		
„ 29	11	36	11	48	G. P. M. and G. S. J.	24	31·73	24	31·68	24	31·70		
OCT. 1	11	4	11	21	G. S. J. and G. P. M.	24	34·91	24	35·58	24	35·24		
„ 3	10	45	11	3	G. P M. and G. S. J.	24	34·72	24	34·85	24	34·78		
„ 5	10	56	11	8	G. P. M. and G. S. J.	24	32·98	24	33·38	24	33·18		
„ 6	11	34	11	52	G. S. J. and G. P. M.	24	34·24	24	34·77	24	34·50		
„ 8	10	46	10	59	G. P. M. and G. S. J.	24	33·76	24	33·36	24	33·56		
„ 10	11	5	11	23	G. S. J. and G P. M.	24	33·71	24	34·50	24	34·10		
„ 12	11	10	11	30	G. S. J. and G. P. M.	24	34·95	24	35·29	24	35·12		
„ 13	10	58	11	11	G. P. M. and G. S. J.	24	34·25	24	34·22	24	34·23		
„ 15	11	18	11	43	G. S. J. and G. P. M.	24	34·21	24	34·37	24	34·29	24	34·25
„ 17	10	46	11	0	G. P. M. and G. S. J.	24	33·51	24	33·73	24	33·62		
„ 19	10	50	11	3	G. P. M. and G. S. J.	24	32·51	24	33·00	24	32·75		
„ 20	10	51	11	7	G. S. J. and G. P. M.	24	32·38	24	32·35	24	32·36		
„ 22	11	18	11	40	G. P. M.	24	33·12	24	33·16	24	33·14		
„ 24	11	12	11	29	G. S. J. and G. P. M.	24	34·31	24	34·69	24	34·50		
„ 26	11	24	11	41	G. S. J. and G. P. M.	24	34·63	24	35·31	24	34·97		
„ 27	11	5	11	19	G. P. M. and G. S. J.	24	34·53	24	34·97	24	34·75		
„ 29	11	22	11	40	G. S. J. and G. P. M.	24	36·71	24	36·58	24	36·64		
„ 31	10	53	11	6	G. P. M. and G. S. J.	24	34·58	24	34·86	24	34·72		
NOV. 2	10	51	11	5	G. P. M. and G. S. J.	24	34·78	24	34·97	24	34·87		
„ 3	11	23	11	45	G. S. J. and G. P. M.	24	34·62	24	35·45	24	35·03		
„ 5	11	0	11	12	G. P. M. and G. S. J.	24	35·35	24	35·44	24	35·39		
„ 7	11	15	11	35	G. S. J. and G. P. M.	24	34·89	24	35·33	24	35·11		
„ 9	11	16	11	38	G. S. J. and G. P. M.	24	34·61	24	34·92	24	34·76		
„ 10	10	12	10	28	G. P. M. and G. S. J.	24	35·06	24	35·46	24	35·26		
„ 12	11	24	11	42	G. S. J. and G. P. M.	24	34·60	24	34·50	24	34·55		
„ 16	11	2	11	13	G. P. M. and G. S. J.	24	34·61	24	34·63	24	34·62	24	35·52
„ 17	11	30	11	51	G. S. J. and G. P. M.	24	34·24	24	34·24	24	34·24		
„ 19	11	4	11	16	G. P. M. and G. S. J.	24	35.24	24	35·38	24	•35·31		
„ 21	11	18	11	33	G. S. J. and G. P. M.	24	35·15	24	35·49	24	35·32		
„ 23	11	19	11	35	G. S. J. and G. P. M.	24	36·29	24	36·37	24	36·33		
„ 24	11	6	11	18	G. P. M. and G. S. J.	24	36·08	24	36·17	24	36·12		
„ 26	11	24	11	42	G. S. J. and G. P. M.	24	37·12	24	37·22	24	37·17		
„ 28	10	59	11	13	G. P. M. and G. S. J.	24	37·25	24	37·31	24	37·28		
„ 30	11	9	11	22	G. P. M. and G. S. J.	24	36·58	24	37·27	24	36·92		
DEC. 1	11	40	12	2	G. S. J. and G. P. M.	24	35·96	24	36·17	24	36:06		
„ 3	11	7	11	19	G. P. M. and G. S. J.	24	36·68	24	36·71	24	36·69		
„ 5	11	23	11	41	G. S. J. and G. P. M.	24	36·84	24	37·56	24	37·20		
„ 7	11	25	11	43	G. S. J. and G. P. M.	24	36·88	24	37·26	24	37·07		
„ 8	11	15	11	29	G. P. M. and G. S. J.	24	37·94	24	37·89	24	37·91		
„ 10	11	14	11	32	G. S. J. and G. P. M.	24	36·57	24	37·05	24	36·81		
„ 12	10	58	11	12	G. P. M. and G. S. J.	24	36·02	24	36·36	24	36·19		
„ 14	11	28	11	40	G. P. M. and G. S. J.	24	36·41	24	36·86	24	36·63		
„ 15	11	16	11	40	G. S. J. and G. P. M.	24	36·11	24	36·22	24	36·16	24	37·83
„ 17	11	47	12	12	G. P. M. and A.	24	38·74	24	38·74	24	38·74		
„ 19	11	56	12	19	A. and G. P. M.	24	39·42	24	39·70	24	39·56		
„ 21	11	35	11	48	A. and G. P. M.	24	38·92	24	39·01	24	38·96		
„ 22	11	42	11	58	G. P. M. and A.	24	37·85	24	38·10	24	37·97		
„ 24	11	28	11	48	G. S. J. and G. P. M.	24	38·64	24	39·01	24	38·82		
„ 25	11	30	11	50	G. S. J. and G. P. M.	24	38·75	24	38·75	24	38·75		
„ 28	11	45	12	4	G. P. M. and A.	24	39·79	24	39·97	24	39·88		
„ 29	11	46	12	2	G. P. M. and A.	24	38·94	24	39·20	24	39·07		
„ 31	12	14	12	34	A. and G. P. M.	24	38·33	24	38·58	24	38:45		

* The mean observed inclination for the year 1917 = 24° 33·21

* The monthly and annual means corrected for diurnal variation appear in table VIII.

Absolute Magnetic Observations, Alibag—Table IIIb.

OBSERVATIONS OF INCLINATION, 1917.

Taken with inductor no. 108 and galvanometer no. 108A by Otto Toepfer and Sons.

1917 Date.		Alibag civil time (0 to 24 hours). At commencement. h.	m.	At conclusion. h.	m.	Observers.	Face of circle. East. °	′	West. °	′	Mean inclination. °	′	* Monthly mean inclination. °	′
JAN.	2	10	56	11	11	G. P. M. and G. S. J.	24	33·48	24	33·69	24	33·58		
,,	4	11	45	12	6	G. S. J. and G. P. M.	24	32·77	24	32·35	24	32·56		
,,	6	7	24	7	43	G. P. M. and G. S. J.	24	37·29	24	37·56	24	37·42		
,,	9	11	5	11	25	G. P. M. and G. S. J.	24	34·42	24	34·27	24	34·34		
,,	11	7	37	7	58	G. S. J. and G. P. M.	24	35·65	24	35·53	24	35·59		
,,	11	11	7	11	28	G. P. M. and G. S. J.	24	34·19	24	33·94	24	34·06		
,,	16	11	30	11	49	G. S. J. and G. P. M.	24	32·85	24	32·84	24	32·84	24	34·02
,,	18	11	32	11	53	G. S. J. and G. P. M.	24	32·70	24	33·20	24	32·95		
,,	20	7	15	7	38	G. P. M. and G. S. J.	24	35·52	24	35·38	24	35·45		
,,	23	11	0	11	18	G. P. M. and G. S. J.	24	32·95	24	33·07	24	33·01		
,,	25	10	58	11	16	G. P. M. and G. S. J.	24	32·68	24	32·63	24	32·65		
,,	27	7	40	8	2	G. S. J. and G. P. M.	24	35·37	24	35·50	24	35·43		
,,	30	11	28	11	46	G. S. J. and G. P. M.	24	32·41	24	32·30	24	32·35		
FEB.	1	11	22	11	43	G. S. J. and G. P. M.	24	32·54	24	32·97	24	32·75		
,,	3	8	35	8	58	G. P. M. and G. S. J.	24	36·67	24	36·34	24	36·50		
,,	6	11	4	11	22	G. P. M. and G. S. J.	24	33·17	24	33·15	24	33·16		
,,	8	11	2	11	19	G. P. M. and G. S. J.	24	34·44	24	34·44	24	34·44		
,,	10	7	31	7	53	G. S. J. and G. P. M.	24	35·35	24	35·22	24	35·28		
,,	13	11	34	11	57	G. S. J. and G. P. M.	24	32·89	24	32·69	24	32·79	24	34·16
,,	15	10	53	11	11	G. P. M.	24	33·63	24	33·43	24	33·53		
,,	17	7	23	7	41	G. P. M. and G. S. J.	24	36·04	24	36·24	24	36·14		
,,	22	10	56	11	10	G. P. M. and G. S. J.	24	33·07	24	33·24	24	33·15		
,,	24	7	31	7	52	G. P. M.	24	35·59	24	35·31	24	35·45		
,,	27	11	9	11	28	A. and G. P. M.	24	32·49	24	32·61	24	32·55		
MAR.	1	11	3	11	24	A. and G. P. M.	24	32·34	24	31·89	24	32·11		
,,	3	7	30	7	46	G. P. M. and A.	24	35·83	24	35·60	24	35·71		
,,	6	11	9	11	30	A. and G. P. M.	24	31·76	24	31·69	24	31·72		
,,	10	7	34	7	52	A. and G. P. M.	24	36·52	24	35·61	24	36·06		
,,	13	11	16	11	38	A. and G. P. M.	24	33·44	24	33·06	24	33·25		
,,	15	11	14	11	32	A. and G. P. M.	24	32·14	24	31·77	24	31·95		
,,	17	7	30	7	42	G. P. M. and A.	24	35·87	24	35·46	24	35·66	24	33·72
,,	20	11	15	11	30	G. P. M. and G. S. J.	24	32·23	24	31·98	24	32·10		
,,	22	11	13	11	30	G. P. M. and G. S. J.	24	31·45	24	31·46	24	31·45		
,,	24	7	28	7	49	G. S. J. and G. P. M.	24	36·96	24	36·38	24	36·67		
,,	27	11	17	11	38	G. S. J. and G. P. M.	24	32·99	24	32·40	24	32·69		
,,	29	7	7	7	23	G. P. M. and G. S. J.	24	36·52	24	35·70	24	36·11		
,,	29	11	27	11	48	G. S. J. and G. P. M.	24	33·10	24	32·75	24	32·92		
APRIL	3	11	0	11	16	G. P. M. and G. S. J.	24	33·32	24	33·43	24	33·37		
,,	5	10	55	11	11	G. P. M. and G. S. J.	24	32·68	24	32·63	24	32·65		
,,	7	7	29	7	49	G. S. J. and G. P. M.	24	36·82	24	36·35	24	36.58		
,,	10	11	23	11	46	G. S. J. and G. P. M.	24	34·32	24	34·03	24	34·17		
,,	12	11	38	12	3	G. S. J. and G. P. M.	24	33·20	24	32·78	24	32·99		
,,	14	7	13	7	30	G. P. M. and G. S. J.	24	36·06	24	36·38	24	36·22	24	34·52
,,	17	11	24	11	41	G. P. M. and G. S. J.	24	33·63	24	33·84	24	33·73		
,,	19	10	57	11	16	G. P. M. and G. S. J.	24	33·40	24	33·23	24	33·31		
,,	21	6	52	7	11	G. S. J. and G. P. M.	24	37·34	24	37·38	24	37·36		
,,	24	11	19	11	39	G. S. J. and G. P. M.	24	32·79	24	32·77	24	32·78		
,,	26	11	25	11	46	G. S. J. and G. P. M.	24	34·13	24	34·08	24	34·10		
,,	28	6	51	7	6	G. P. M. and G. S. J.	24	37·13	24	36·94	24	37·03		
MAY	1	10	59	11	16	G. P. M. and G. S. J.	24	34·33	24	34·39	24	34·36		
,,	3	11	2	11	19	G. P. M. and G. S. J.	24	36·21	24	35·69	24	35·95		
,,	5	6	52	7	12	G. S. J. and G. P. M.	24	37·73	24	37·71	24	37·72		
,,	8	11	27	11	48	G. S. J. and G. P. M.	24	35·42	24	35·26	24	35·34		
,,	10	11	19	11	42	G. S. J. and G. P. M.	24	33·92	24	33·93	24	33·92		
,,	12	6	47	7	6	G. P. M. and G. S. J.	24	37·97	24	38·00	24	37·98		
,,	15	11	6	11	23	G. P. M. and G. S. J.	24	34·87	24	34·32	24	34·59	24	35·50
,,	17	11	2	11	21	G. P. M. and G. S. J.	24	36·72	24	35·95	24	36·33		
,,	19	6	47	7	10	G. P. M. and G. S. J.	24	38·14	24	38·39	24	38·26		
,,	22	11	11	11	31	G. S. J. and G. P. M.	24	32·47	24	32·14	24	32·50		
,,	24	11	27	11	50	G. S. J. and G. P. M.	24	34·25	24	34·19	24	34·22		
,,	26	6	42	7	0	G. P. M. and G. S. J.	24	37·60	24	37·77	24	37·68		
,,	29	10	58	11	15	G. P. M. and G. S. J.	24	34·55	24	35·45	24	35·00		
,,	31	11	30	11	57	G. S. J. and G. P. M.	24	33·39	24	33·39	24	33·39		

* The monthly and annual means corrected for diurnal variation appear in table VIIIa.

1917 Date.		Alibag civil time (0 to 24 hours). At commencement. h.	m.	At conclusion. h.	m.	Observers.	Face of circle. East. °	′	West. °	′	Mean inclination. °	′	*Monthly mean inclination. °	′
JUNE	2	6	47	7	13	G. S. J. and G. P. M.	24	37·55	24	36·97	24	37·26		
,,	5	11	11	11	36	G. S. J. and G. P. M.	24	34·10	24	33·91	24	34·00		
,,	7	11	28	11	52	G. S. J. and G. P. M.	24	33·24	24	33·93	24	33·58		
,,	9	6	45	7	3	G. P. M. and G. S. J.	24	38·52	24	38·19	24	38·35		
,,	12	11	0	11	17	G. P. M. and G. S. J.	24	35·47	24	35·40	24	35·43		
,,	14	11	7	11	22	G. P. M. and G. S. J.	24	34·57	24	34·41	24	34·49		
,,	16	6	37	6	57	G. S. J. and G. P. M.	24	38·46	24	38·24	24	38·35	24	35·80
,,	19	11	25	11	47	G. S. J. and G. P. M.	24	33·06	24	32·48	24	32·77		
,,	21	11	21	11	41	G. S. J. and G. P. M.	24	34·80	24	34·39	24	34·59		
,,	23	6	44	7	2	G. P. M. and G. S. J.	24	39·26	24	39·27	24	39·26		
,,	26	11	19	11	33	G. P. M. and G. S. J.	24	34·17	24	34·17	24	34·17		
,,	28	11	2	11	22	G. P. M. and G. S. J.	24	35·90	24	35·91	24	35·90		
,,	30	7	12	7	32	G. S. J. and G. P. M.	24	37·32	24	37·27	24	37·29		
JULY	5	11	18	11	43	G. S. J. and R. N. V.	24	34·00	24	34·44	24	34·22		
,,	7	6	39	7	2	G. S. J. and R. N. V.	24	39·00	24	38·43	24	38·71		
,,	10	12	23	13	9	R. N. V. and G. S. J.	24	33·55	24	32·97	24	33·26		
,,	12	11	23	12	3	R. N. V. and G. S. J.	24	33·90	24	33·37	24	33·63		
,,	14	7	21	7	48	G. S. J. and R. N. V.	24	40·57	24	40·21	24	40·39		
,,	17	11	19	11	44	G. S. J. and R. N. V.	24	34·96	24	35·34	24	35·15	24	36·05
,,	19	12	12	12	35	G. S. J. and R. N. V.	24	35·44	24	36·02	24	35·73		
,,	21	8	14	8	41	R. N. V. and G. S. J.	24	37·11	24	37·48	24	37·29		
,,	24	12	6	12	50	R. N. V. and G. S. J.	24	37·58	24	37·28	24	37·43		
,,	26	11	25	11	50	R. N. V. and G. S. J.	24	34·88	24	34·93	24	34·90		
,,	28	7	28	7	52	G. S. J. and R. N. V.	24	37·21	24	37·38	24	37·29		
,,	31	11	12	11	40	G. S. J. and R. N. V.	24	34·86	24	34·43	24	34·64		
AUG.	4	7	9	7	26	G. P. M. and G. S. J.	24	38·03	24	37·85	24	37·94		
,,	7	11	0	11	15	G. P. M. and G. S. J.	24	34·86	24	34·58	24	34·72		
,,	11	8	17	8	35	G. S. J. and G. P. M.	24	40·60	24	40·74	24	40·67		
,,	14	11	10	11	34	G. S. J. and G. P. M.	24	36·66	24	37·36	24	37·01		
,,	16	11	47	12	5	G. S. J. and G. P. M.	24	34·84	24	34·21	24	34·52		
,,	18	6	44	7	2	G. P. M. and G. S. J.	24	40·82	24	41·01	24	40·91	24	37·42
,,	21	10	55	11	11	G. P. M. and G. S. J.	24	37·37	24	37·10	24	37·23		
,,	23	10	58	11	13	G. P. M. and G. S. J.	24	38·80	24	39·24	24	39·02		
,,	25	7	48	8	7	G. S. J. and G. P. M.	24	39·75	24	39·14	24	39·44		
,,	28	11	35	11	56	G. S. J. and G. P. M.	24	35·20	24	35·28	24	35·24		
,,	30	11	44	12	6	G. S. J. and G. P. M.	24	34·94	24	34·97	24	34·95		
SEPT.	1	8	25	8	56	G. P. M. and G. S. J.	24	39·12	24	38·22	24	38·67		
,,	4	10	55	11	13	G. P. M. and G. S. J.	24	36·69	24	36·32	24	36·50		
,,	6	10	54	11	13	G. P. M. and G. S. J.	24	35·61	24	35·73	24	35·67		
,,	8	7	30	7	50	G. S. J. and G. P. M.	24	40·43	24	39·98	24	40·20		
,,	11	11	16	11	40	G. S. J. and G. P. M.	24	34·30	24	34·59	24	34·44		
,,	13	11	36	11	57	G. S. J. and G. P. M.	24	33·92	24	34·28	24	34·10	24	36·69
,,	15	6	51	7	12	G. P. M. and G. S. J.	24	39·53	24	39·26	24	39·39		
,,	18	12	0	12	17	G. P. M. and G. S. J.	24	33·81	24	33·31	24	33·56		
,,	22	7	12	7	35	G. S. J. and G. P. M.	24	39·90	24	39·73	24	39·81		
,,	25	11	13	11	28	G. P. M. and G. S. J.	2	34·48	24	34·97	24	34·72		
,,	27	11	15	11	29	G. P. M. and G. S. J.	24	34·32	24	33·90	24	34·11		
,,	29	7	14	7	52	G. S. J. and G. P. M.	24	39·22	24	39·05	24	39·13		
OCT.	2	11	15	11	36	G. S. J. and G. P. M.	24	35·45	24	35·28	24	35·36		
,,	4	11	41	12	1	G. S. J. and G. P. M.	24	36·48	24	37·11	24	36·79		
,,	6	7	2	7	25	G. P. M. and G. S. J.	24	39·56	24	39·41	24	39·48		
,,	9	11	16	11	40	G. P. M. and G. S. J.	24	36·11	24	35·88	24	35·99		
,,	11	11	1	11	23	G. P. M. and G. S. J.	24	38·94	24	38·02	24	38·48		
,,	13	7	9	7	31	G. S. J. and G. P. M.	24	40·50	24	40·38	24	40·44		
,,	16	11	33	11	55	G. S. J. and G. P. M.	24	36·27	24	36·76	24	36·51	24	37·57
,,	18	11	24	11	41	G. S. J. and G. P. M.	24	35·06	24	35·03	24	35·04		
,,	20	6	50	7	6	G. P. M. and G. S. J.	24	40·22	24	39·89	24	40·05		
,,	23	10	55	11	9	G. P. M. and G. S. J.	24	36·25	24	36·18	24	36·21		
,,	27	6	57	7	23	G. S. J. and G. P. M.	24	38·89	24	38·48	24	38·68		
,,	30	11	33	11	56	G. S. J. and G. P. M.	24	37·56	24	38·09	24	37·82		
NOV.	1	11	12	11	33	G. S. J. and G. P. M.	24	35·70	24	35·37	24	35·53		
,,	3	6	57	7	17	G. P. M. and G. S. J.	24	39·99	24	40·27	24	40·13		
,,	6	11	26	11	41	G. P. M. and G. S. J.	24	37·72	24	37·59	24	37·65		
,,	8	11	8	11	24	G. P. M. and G. S. J.	24	37·15	24	37·04	24	37·09		
,,	10	7	17	7	43	G. S. J. and G. P. M.	24	39·93	24	39·99	24	39·96		
,,	15	11	18	11	40	G. S. J. and G. P. M.	24	36·35	24	36·85	24	36·60		
,,	17	7	12	7	35	G. P. M. and G. S. J.	24	40·30	24	40·13	24	40·21	24	38·33
,,	20	11	15	11	30	G. P. M. and G. S. J.	24	37·04	24	37·23	24	37·13		
,,	22	10	58	11	19	G. P. M. and G. S. J.	24	38·18	24	38·40	24	38·29		
,,	24	7	10	7	35	G. S. J. and G. P. M.	24	39·56	24	39·89	24	39·72		
,,	27	11	18	11	44	G. S. J. and G. P. M.	24	38·84	24	39·31	24	39·07		
,,	29	11	20	11	42	G. S. J. and G. P. M.	24	38·17	24	39·01	24	38·59		

* The monthly and annual means corrected for diurnal variation appear in table VIIIa.

1917 Date.		Alibag civil time (0 to 24 hours). At commencement.		Alibag civil time (0 to 24 hours). At conclusion.		Observers.	Face of circle. East.		Face of circle. West.		Mean inclination.		* Monthly mean inclination.	
		h.	m.	h.	m.		°	′	°	′	°	′	°	′
Dec.	1	7	22	7	40	G. P. M. and G. S. J.	24	40·94	24	41·05	24	40·99		
,,	4	10	52	11	7	G. P. M. and G. S. J.	24	38·62	24	38·90	24	38·76		
,,	6	11	16	11	35	G. P. M. and G. S. J.	24	39·11	24	39·32	24	39·21		
,,	8	7	17	7	39	G. S. J. and G. P. M.	24	39·24	24	39·19	24	39·21		
,,	11	12	2	12	19	G. S. J. and G. P. M.	24	38·12	24	38·42	24	38·27		
,,	13	11	31	11	51	G. S. J. and G. P. M.	24	38·13	24	38·23	24	38·18		
,,	15	7	13	7	30	G. P. M. and G. S. J.	24	39·75	24	39·83	24	39·79	24	39·34
,,	18	12	13	12	31	A. and G. P. M.	24	37·41	24	37·84	24	37·62		
,,	20	11	41	11	58	A. and G. P. M.	24	39·36	24	39·33	24	39·34		
,,	22	7	31	7	43	G. P. M. and A.	24	41·25	24	41·30	24	41·27		
,,	26	11	30	11	47	G. P. M. and A.	24	39·66	24	39·81	24	39·73		
,,	27	12	14	12	35	G. P. M. and A.	24	39·56	24	39·61	24	39·58		
,,	28	12	26	12	47	G. P. M. and A.	24	39·48	24	39·55	24	39·51		

The mean * observed inclination for the year 1917 = ° 24 ″ 36·09

* The monthly and annual means corrected for diurnal variation appear in table VIIIa.

Absolute Magnetic Observations, Alibag—Table 1a.

Observations of vibration and deflection, taken with magnetometer no. 7 (T. Cooke and Sons) for the determination of absolute horizontal force.

1918.

1918 Date.	Civil time, mean.	Vibration magnet. Time of one vibration.	Effect of 9C° torsion.	Temperature.	Rate of chronometer.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Angle of deflection of magnet marked 7. Distance. 22·5 cms.	30·0 cms.	Temperature.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Observer	Calculated results in C. G. S. unit. Values of m.	Values of H. From deflection at distance. 22·5 cms. ($H_{22·5}$).	30·0 cms. ($H_{30·0}$).	Difference. $H_{22·5}-H_{30·0}$	Mean. $\frac{H_{22·5}+H_{30·0}}{2}$	*Observed monthly mean values of H.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	h. m.	S.	Sc. div.	°	S.	Cms.	°	° ′ ″	° ′ ″	°	Cms.	°							
JAN. 2	13 43	2·7061	1·45	25·7	+0·3	6·612	82·35	26 33 31	10 48 14	26·0	6·375	82·35	A.	936·83	0·36933	0·36934	—·00001	0·36933	
,, ,,	15 23	2·7077	1·46	26·6	,,	5·937	82·35	26 34 31	10 48 55	26·3	5·947	82·35	A.	936·89	·36905	·36899	+·00006	·36902	
,, 9	12 30	2·7067	1·46	25·7	+0·4	6·435	81·90	26 34 5	10 48 36	26·8	6·322	81·90	A.	937·00	·36911	·36909	+·00002	·36910	
,, ,,	13 46	2·7075	1·47	26·0	,,	5·942	81·90	26 34 4	10 48 30	26·0	6·207	81·90	A.	936·55	·36910	·36910	·00000	·36910	
,, 16	12 41	2·7081	1·51	27·4	+0·3	6·435	81·80	26 32 25	10 47 55	27·6	6·237	81·80	A.	936·59	·36917	·36916	+·00001	·36916	0·369060
,, ,,	14 30	2·7089	1·52	28·0	,,	5·882	81·80	26 33 0	10 48 6	27·8	5·867	81·80	A.	936·66	·36904	·36903	+·00001	·36903	
,, 23	12 19	2·7074	1·50	27·4	+0·5	6·387	81·95	26 32 30	10 47 55	27·5	6·272	81·95	A.	936·83	·36927	·36926	+·00001	·36926	
,, ,,	13 24	2·7085	1·50	27·7	,,	6·110	81·85	26 32 25	10 48 2	27·5	6·102	81·85	A.	936·55	·36916	·36911	+·00005	·36913	
,, 30	12 54	2·7090	1·52	27·8	+0·5	5·975	82·00	26 32 52	10 48 11	27·9	5·780	82·00	A.	936·59	·36901	·36897	+·00004	·36899	
,, ,,	14 44	2·7109	1·53	27·6	,,	4·720	82·00	26 35 2	10 48 59	28·0	4·837	82·00	A.	936·50	·36850	·36846	+·00004	·36848	
FEB. 6	12 56	2·7073	1·54	25·0	+0·1	5·680	81·80	26 36 7	10 49 25	25·0	5·471	81·80	A.	936·76	·36892	·36888	+·00004	·36890	
,, ,,	14 50	2·7091	1·54	25·7	,,	5·067	81·80	26 36 51	10 49 47	25·3	5·000	81·80	A.	936·63	·36863	·36856	+·00007	·36859	
,, 13	13 42	2·7107	1·53	28·1	+0·1	4·755	82·15	26 34 55	10 49 0	28·4	4·720	82·15	A.	936·74	·36854	·36849	+·00005	·36851	
,, ,,	15 15	2·7114	1·54	28·7	,,	4·425	82·17	26 35 4	10 49 12	28·5	4·591	82·17	A.	936·79	·36847	·36837	+·00010	·36842	·369004
,, 20	12 24	2·7062	1·54	26·4	+0·1	6·890	82·35	26 32 10	10 48 7	26·7	6·695	82·35	A.	936·85	·36945	·36935	+·00010	·36940	
,, ,,	13 35	2·7072	1·54	27·0	,,	6·307	82·35	26 32 7	10 47 57	26·9	6·540	82·35	A.	936·61	·36936	·36930	+·00006	·36933	
,, 27	12 57	2·7068	1·52	28·4	+0·1	6·735	82·80	26 30 42	10 47 13	28·5	6·591	82·80	A.	936·98	·36954	·36953	+·00001	·36953	
,, ,,	14 4	2·7079	1·55	28·5	,,	6·285	82·80	26 31 1	10 47 28	28·4	6·483	82·80	A.	936·72	·36938	·36933	+·00005	·36935	
MAR. 6	12 41	2·7093	1·54	29·2	0·0	6·307	83·70	26 30 27	10 47 16	29·2	6·241	83·70	A.	936·42	·36923	·36918	+·00005	·36920	
,, ,,	14 27	2·7091	1·51	29·0	,,	5·826	83·72	26 31 20	10 47 37	29·0	6·017	83·72	A.	936·68	·36916	·36912	+·00004	·36914	
,, 13	13 17	2·7100	1·55	29·5	0·0	5·605	84·60	26 31 21	10 47 28	29·9	5·425	84·60	A.	936·61	·36899	·36899	·00000	·36899	
,, ,,	14 27	2·7113	1·54	30·0	,,	5·057	84·62	26 31 14	10 47 40	30·1	5·266	84·62	A.	936·38	·36886	·36878	+·00008	·36882	·369236
,, 20	12 23	2·7074	1·55	29·4	+0·1	6·927	85·50	26 28 37	10 46 27	29·5	6·777	85·50	A.	936·66	·36967	·36966	+·00001	·36966	
,, ,,	13 31	2·7085	1·54	29·6	,,	6·297	85·50	26 28 43	10 46 26	29·6	6·750	85·50	A.	936·35	·36952	·36952	·00000	·36952	
,, 27	12 40	2·7076	1·51	28·0	+0·2	6·355	85·45	26 31 11	10 47 22	28·4	6·037	85·45	A.	936·72	·36936	·36936	·00000	·36936	
,, ,,	13 48	2·7087	1·54	28·7	,,	5·485	85·45	26 31 46	10 47 30	28·6	5·807	85·45	A.	936·66	·36918	·36922	—·00004	·36920	

* The monthly and annual means corrected for diurnal variation appear in table VIII.

1918 Date.	Civil time, mean.	Vibration magnet. Time of one vibration.	Effect of 90° torsion.	Temperature.	Rate of chronometer.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Angle of deflection of magnet marked 7. Distance. 22·5 cms.	30·0 cms.	Temperature.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Observer	Calculated results in C. G. S. unit. Values of m.	Values of H. From deflection at distance. 22·5 cms. ($H_{22·5}$).	30·0 cms. ($H_{30·0}$).	Difference. $H_{22·5}-H_{30·0}$	Mean. $\frac{H_{22·5}+H_{30·0}}{2}$	*Observed monthly mean values of H.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	h. m.	S.	Sc. div.	°	S.	Cms.	°	° ′ ″	° ′ ″	°	Cms.	°							
April 3	12 40	2·7071	1·53	28·0	+0·1	6·555	85·60	26 30 30	10 47 9	28·3	6·465	85·60	A.	936·70	0·36950	0·36950	·00000	0·36950	
,, ,,	13 54	2·7076	1·55	28·0	,,	6·152	85·60	26 30 45	10 47 17	28·3	6·358	85·60	A.	936·61	·36941	·36939	+·00002	·36940	
,, 10	12 51	2·7089	1·53	29·4	+0·2	5·723	85·80	26 30 57	10 47 16	29·9	5·550	85·80	A.	936·85	·36919	·36919	·00000	·36919	
,, ,,	14 6	2·7099	1·53	30·0	,,	5·333	85·80	26 31 0	10 47 16	30·0	5·462	85·80	A.	936·68	·36909	·36910	−·00001	·36909	
,, 17	14 49	2·7091	0·99	29·5	+0.2	5·860	86·45	26 30 22	10 47 7	30·0	5·645	86·45	A.	936·76	·36924	·36923	+·00001	·36923	·369150
,, ,,	16 2	2·7110	1·01	30·2	,,	5·409	86·45	26 30 23	10 47 0	30·0	5·542	86·45	A.	936·20	·36905	·36906	−·00001	·36905	
,, 24	13 59	2·7107	1·02	29·4	+0·1	4·992	87·00	26 31 53	10 47 41	29·5	4·972	87·00	A.	936·46	·36890	·36888	+·00002	·36889	
,, ,,	15 14	2·7111	0·90	29·9	,,	4·825	87·00	26 31 55	10 47 48	29·7	4·942	87·00	A.	936·53	·36887	·36883	+·00004	·36885	
May 1	13 0	2·7111	1·81	29·9	+0·3	4·980	87·80	26 30 47	10 47 27	30·6	4·920	87·80	A.	936·35	·36887	·36881	+·00006	·36884	
,, ,,	15 4	2·7117	1·57	31·0	,,	4·645	87·80	26 30 18	10 47 11	30·9	4·932	87·80	A.	936·35	·36893	·36888	+·00005	·36890	
,, 8	13 8	2·7092	1·55	30·5	0·0	5·557	88·60	26 30 47	10 47 21	30·0	5·265	88·60	A.	937·04	·36925	·36922	+·00003	·36923	
,, ,,	15 17	2·7111	1·54	30·7	,,	4·997	88·60	26 30 44	10 47 5	30·4	5·050	88·60	A.	936·40	·36898	·36901	−·00003	·36899	
,, 15	13 2	2·7098	1·55	30·9	−0·4	5·465	89·50	26 30 17	10 47 1	30·4	5·137	89·50	A.	936·81	·36922	·36922	·00000	·36922	
,, ,,	15 24	2·7111	1·54	30·2	,,	4·605	89·50	26 31 26	10 47 33	30·1	4·765	89·50	A.	936·46	·36888	·36886	+·00002	·36887	·369083
,, 22	13 14	2·7106	1·58	31·5	+0·1	4·935	89·95	26 30 1	10 47 4	31·2	4·765	89·95	A.	936·83	·36911	·36907	+·00004	·36909	
,, ,,	14 48	2·7123	1·54	31·0	,,	4·467	89·95	26 30 40	10 47 15	31·0	4·610	89·95	A.	936·25	·36879	·36877	+·00002	·36878	
,, 29	13 2	2·7069	1·57	29·0	+0·2	6·085	89·85	26 29 53	10 46 57	28·9	5·810	89·85	A.	936·96	·36962	·36961	+·00001	·36961	
,, ,,	14 47	2·7085	1·57	28·4	,,	5·255	89·82	26 30 40	10 47 5	28·7	5·587	89·82	A.	936·38	·36928	·36932	−·00004	·36930	
June 5	13 7	2·7087	1·57	29·8	+0·4	6·187	88·60	26 29 37	10 46 49	29·5	5·962	88·60	A.	936·57	·36943	·36942	+·00001	·36942	
,, ,,	15 1	2·7101	1·58	30·0	,,	5·150	88·60	26 30 20	10 47 7	30·0	5·427	88·60	A.	936·44	·36912	·36911	+·00001	·36911	
,, 12	12 27	2·7120	1·54	31·0	+0·1	4·485	88·40	26 31 41	10 47 50	30·8	4·400	88·40	A.	936·66	·36874	·36866	+·00008	·36870	
,, ,,	14 42	2·7119	1·59	30·7	,,	4·097	88·42	26 31 40	10 47 42	31·2	4·197	88·42	A.	936·68	·36870	·36865	+·00005	·36867	
,, 19	12 28	2·7086	1·60	28·0	0·0	5·415	88·80	26 31 7	10 47 35	28·2	5·320	88·80	A.	936·40	·36924	·36918	+·00006	·36921	·369127
,, ,,	14 53	2·7096	1·61	28·0	,,	5·011	88·77	26 32 25	10 47 50	28·0	5·207	88·77	A.	936·25	·36898	·36899	−·00001	·36898	
,, 26	12 29	2·7075	1·51	30·0	+0·1	6·322	88·30	26 28 34	10 46 17	30·1	6·222	88·30	A.	936·83	·36967	·36969	−·00002	·36968	
,, ,,	15 27	2·7097	1·51	30·0	,,	5·337	88·30	26 29 41	10 46 50	30·1	5·637	88·30	A.	936·42	·36925	·36925	·00000	·36925	
July 4	12 54	2·7105	1·53	29·2	+0·2	5·446	88·10	26 30 15	10 47 0	29·2	5·480	88·10	G. S. J.	935·90	·36909	·36910	−·00001	·36909	
,, ,,	15 27	2·7099	1·56	29·0	,,	5·171	88·10	26 31 2	10 47 20	29·0	5·295	88·10	G. S. J.	936·25	·36909	·36909	·00000	·36909	
,, 10	13 10	2·7092	1·53	30·0	+0·2	5·962	87·40	26 29 22	10 46 36	30·3	5·790	87·40	A.	936·53	·36933	·36935	−·00002	·36934	
,, ,,	14 23	2·7099	1·56	30·4	,,	5·640	87·40	26 29 37	10 46 45	30·4	5·750	87·40	A.	936·48	·36923	·36924	−·00001	·36923	
,, 17	12 42	2·7085	1·59	30·0	+0·2	5·970	87·30	26 29 14	10 46 36	30·1	5·868	87·30	A.	936·68	·36946	·36947	−·00001	·36946	
,, ,,	13 53	2·7103	1·56	30·4	,,	5·662	87·30	26 29 17	10 46 32	30·1	5·792	87·30	A.	936·12	·36924	·36928	−·00004	·36926	·369305
,, 24	12 27	2·7091	1·56	30·5	+0·2	5·806	87·70	26 28 50	10 46 25	30·6	5·957	87·70	A.	936·61	·36943	·36945	−·00002	·36944	
,, ,,	13 42	2·7092	1·57	30·5	,,	5·920	87·70	26 28 21	10 46 11	30·5	5·989	87·70	A.	936·38	·36946	·36950	−·00004	·36948	
,, 31	12 27	2·7090	1·57	29·6	+0·3	5·732	87·90	26 29 19	10 46 35	29·7	5·660	87·90	A.	936·33	·36939	·36940	−·00001	·36939	
,,	13 38	2·7097	1·56	29·9	,,	5·412	87·90	26 29 44	10 46 46	29·7	5·630	87·90	A.	936·29	·36927	·36928	−·00001	·36927	

Aug.	7	12	22	2·7096	1·55	29·6	+0·3	5·385	87·25	26	30	57	10	47	24	29·4	5·347	87·25	A.	936·59	·36915	·36912	+·00003	·36913		
,,	,,	13	33	2·7100	1·57	29·4	,,	5·177	87·25	26	30	55	10	47	0	29·5	5·255	87·25	A.	936·27	·36907	·36915	−·00008	·36911		
,,	14	12	18	2·7083	1·57	29·7	+0·5	6·078	87·15	26	29	15	10	46	45	30·0	5·935	87·15	A.	936·72	·36945	·36943	+·00002	·36944		
,,	,,	13	29	2·7095	1·54	30·0	,,	5·797	87·15	26	29	12	10	46	47	30·1	5·933	87·15	A.	936·40	·36933	·36928	+·00005	·36930		
,,	22	12	50	2·7087	1·56	28·7	+0·5	5·735	86·70	26	31	11	10	47	21	28·7	5·552	86·70	A.	936·57	·36923	·36924	−·00001	·36923	·369167	
,,	,,	14	1	2·7096	1·54	29·0	,,	5·427	86·70	26	31	27	10	47	41	28·9	5·480	86·70	A.	936·59	·36909	·36903	+·00006	·36906		
,,	29	13	7	2·7097	1·57	29·3	+0·6	5·527	86·80	26	30	34	10	47	14	29·7	5·415	86·80	A.	936·44	·36912	·36910	+·00002	·36911		
,,	,,	14	35	2·7104	1·53	29·4	,,	4·970	86·80	26	31	21	10	47	37	29·4	5·227	86·80	A.	936·40	·36899	·36894	+·00005	·36896		
Sept.	4	12	52	2·7092	1·56	29·3	+0·5	5·275	86·90	26	31	47	10	47	42	29·3	5·070	86·90	A.	936·85	·36910	·36907	+·00003	·36908		
,,	,,	14	57	2·7111	1·56	29·5	,,	4·412	86·95	26	32	24	10	47	52	29·4	4·818	86·95	A.	936·40	·36877	·36877	·00000	·36877		
,,	11	12	29	2·7088	1·52	29·1	+0·4	6·150	87·30	26	29	20	10	46	50	29·0	6·105	87·30	A.	936·22	·36942	·36938	+·00004	·36940		
,,	,,	13	44	2·7091	1·53	29·0	,,	5·765	87·30	26	29	49	10	46	58	29·0	5·973	87·30	A.	936·22	·36933	·36930	+·00003	·36931		
,,	18	12	28	2·7119	1·57	30·4	+0·3	3·820	87·95	26	33	16	10	48	10	30·1	3·800	87·95	A.	936·72	·36860	·36860	·00000	·36860	·368962	
,,	,,	14	25	2·7122	1·56	30·0	,,	3·880	87·90	26	33	13	10	48	7	30·0	3·950	87·90	A.	936·48	·36854	·36854	·00000	·36854		
,,	25	12	51	2·7104	1·58	30·0	+0·3	5·070	88·25	26	31	17	10	47	27	29·8	4·915	88·25	A.	936·57	·36900	·36899	+·00001	·36899		
,,	,,	14	31	2·7102	1·59	30·0	,,	4·545	88·20	26	31	19	10	47	33	29·8	4·807	88·20	A.	936·68	·36903	·36899	+·00004	·36901		
Oct.	2	12	22	2·7100	1·67	30·3	+0·4	5·375	88·50	26	30	15	10	47	1	29·7	5·408	88·50	A.	936·42	·36920	·36921	−·00001	·36920		
,,	,,	13	34	2·7097	1·63	29·7	,,	4·969	88·50	26	30	39	10	47	11	29·7	5·296	88·50	A.	936·50	·36915	·36915	·00000	·36915		
,,	9	12	31	2·7100	1·65	29·6	+0·3	4·821	88·90	26	31	12	10	47	25	29·7	4·901	88·90	A.	936·55	·36904	·36903	+·00001	·36903		
,,	,,	13	54	2·7110	1·64	30·0	,,	4·526	88·90	26	31	30	10	47	42	29·8	4·938	88·90	A.	936·46	·36889	·36884	+·00005	·36886		
,,	17	13	0	2·7125	1·63	30·4	+0·2	3·505	89·10	26	33	28	10	48	28	30·8	3·291	89·10	A.	936·79	·36843	·36836	+·00007	·36839		
,,	,,	14	25	2·7128	1·62	31·0	,,	3·302	89·15	26	33	2	10	48	26	30·8	3·397	89·15	A.	936·76	·36848	·36838	+·00010	·36843	·368997	
,,	23	12	36	2·7100	1·69	31·3	+0·1	5·400	89·25	26	29	15	10	46	37	31·3	5·106	89·25	A.	936·72	·36925	·36925	·00000	·36925		
,,	,,	13	47	2·7121	1·68	31·5	,,	4·503	89·25	26	29	52	10	46	49	31·4	4·807	89·25	A.	936·18	·36894	·36892	+·00002	·36893		
,,	30	12	10	2·7085	1·67	30·4	+0·1	5·655	89·15	26	29	15	10	46	39	30·1	5·480	89·15	A.	936·79	·36949	·36949	·00000	·36949		
,,	,,	13	26	2·7103	1·69	30·8	,,	5·110	89·15	26	29	7	10	46	37	30·5	5·281	89·15	A.	936·31	·36925	·36924	+·00001	·36924		
Nov.	6	12	35	2·7091	1·68	31·0	+0·1	5·792	89·20	26	28	50	10	46	36	30·6	5·562	89·20	A.	936·76	·36946	·36943	+·00003	·36944		
,,	,,	13	54	2·7097	1·70	30·4	,,	5·260	89·20	26	29	25	10	46	37	30·4	5·427	89·20	A.	936·44	·36928	·36930	·00002	·36929		
,,	13	13	2	2·7122	1·70	31·6	+0·1	Not available	89·30	26	31	0	10	47	21	32·4	Not available	89·30	A.	936·81	·36869	·36867	+·00002	·36868		
,,	,,	14	25	2·7120	1·57	31·4	,,	,,	89·30	26	30	52	10	47	22	32·0	,,	89·30	A.	936·74	·36876	·36872	+·00004	·36874	·369037	
,,	20	12	25	2·7091	1·68	29·9	+0·2	5·630	88·95	26	29	26	10	46	42	30·3	5·440	88·95	A.	936·55	·36933	·36931	·00002	·36933		
,,	,,	13	37	2·7111	1·69	31·0	,,	4·830	88·95	26	28	14	10	46	21	30·8	5·612	88·95	A.	935·92	·36922	·36920	+·00002	·36921		
,,	28	13	52	2·7106	1·68	28·0	+0·2	4·965	88·40	26	32	47	10	47	56	28·1	4·830	88·40	A.	936·01	·36879	·36881	−·00002	·36880		
,,	,,	14	58	2·7106	1·66	28·4	,,	4·515	88·35	26	32	42	10	48	1	28·3	4·705	88·35	A.	936·16	·36882	·36880	+·00002	·36881		
Dec.	4	12	43	2·7096	1·51	29·0	+0·2	4·956	87·90	26	31	36	10	47	39	28·9	4·892	87·90	A.	936·50	·36907	·36905	+·00002	·36906		
,,	,,	14	2	2·7106	1·50	29·0	,,	4·445	87·90	26	32	5	10	47	45	29·0	4·745	87·90	A.	936·29	·36888	·36887	+·00001	·36887		
,,	11	12	41	2·7092	1·50	26·5	+0·2	4·420	86·90	26	35	10	10	48	48	27·0	4·297	86·90	A.	936·57	·36871	·36873	−·00002	·36872		
,,	,,	14	33	2·7098	1·52	27·3	,,	4·470	86·90	26	34	31	10	48	37	27·1	4·475	86·90	A.	936·38	·36875	·36877	−·00002	·36876		
,,	18	13	26	2·7074	1·49	26·6	+0·2	5·517	85·90	26	33	21	10	48	22	26·7	5·247	85·90	A.	936·74	·36918	·36914	+·00004	·36916	·368721	
,,	,,	14	40	2·7084	1·54	27·0	,,	5·072	85·95	26	33	41	10	48	32	27·0	5·082	85·95	A.	936·66	·36902	·36896	+·00006	·36899		
,,	26	13	1	2·7111	1·52	26·4	+0·3	3·085	85·10	26	38	1	10	50	0	26·7	3·152	85·10	A.	936·61	·36815	·36815	·00000	·36815		
,,	,,	14	14	2·7119	1·55	27·0	,,	2·912	85·10	26	38	20	10	50	2	26·9	3·052	85·10	A.	936·59	·36805	·36808	−·00003	·36806		
																	Mean for the year	=		936·55	..	..	+·00017			

The mean observed* value of the horizontal force for the year 1918 = 0·369071

* The monthly and annual means corrected for diurnal variation appear in Table VIII.

Absolute Magnetic Observations, Alibag—Table Ib.

OBSERVATIONS OF VIBRATION AND DELFECTION, TAKEN WITH MAGNETOMETER NO. 3 (CAMBRIDGE SCIENTIFIC INSTRUMENT CO.) FOR THE DETERMINATION OF ABSOLUTE HORIZONTAL FORCE.

[*The vibration and deflection magnets belonging to the instrument no. 3 (Cambridge Scientific Instrument Co.) were used from January to the 6th May and those belonging to the instrument no. 137 (Dover Charlton) were brought into use from the 20th May. Vide Introduction for further details.*]

1918.

1918. Date.	Civil time, mean.	Vibration magnet. Time of one vibration.	Effect of 90° torsion.	Temperature.	Rate of chronometer.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Angle of deflection. Distance. 23 cms.	30 cms.	Temperature.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Observer.	Values of m.	Calculated results in C. G. S. unit. Values of H. From deflection at distance. 23 cms. (H_{23}).	30 cms. (H_{30}).	Difference. $H_{23} - H_{30}$	Mean. $\frac{H_{23} + H_{30}}{2}$	*Observed monthly mean values of H.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	h. m.	S.	Sc. div.	°	S.	cms.	°	° ′ ″	° ′ ″	°	cms.	°							
JAN. 7	13 4	2·8847	2·00	26·4	+0·5	5·975	82·10	23 29 37	10 22 0	26·1	5·815	82·10	A.	905·57	0·36911	0·36900	+·00011	0·36905	
,, ,,	14 28	2·8854	1·97	26·6	,,	5·592	82·10	23 29 56	10 22 4	26·2	5·665	82·10	A.	905·50	·36899	·36890	+·00009	·36894	
,, 21	12 20	2·8825	2·28	26·5	+0·5	6·850	81·80	23 26 36	10 20 42	26·7	6·835	81·80	A.	905·44	·36969	·36960	+·00009	·36964	·369315
,, ,,	14 3	2·8837	2·24	27·1	,,	6·492	81·80	23 27 13	10 20 55	26·9	6·667	81·80	A.	905·42	·36950	·36942	+·00008	·36946	
,, 28	13 5	2·8831	2·47	26·8	+0·2	6·690	81·75	23 27 21	10 21 8	26·8	6·495	81·75	A.	905·59	·36953	·36940	+·00013	·36946	
,, ,,	14 43	2·8842	2·47	27·3	,,	6·087	81·77	23 27 27	10 21 18	26·7	6·275	81·77	A.	905·38	·36942	·36926	+·00016	·36934	
FEB. 4	13 2	2·8842	1·88	27·0	+0·2	6·318	82·00	23 27 59	10 21 27	26·8	6·202	82·00	A.	905·57	·36936	·36922	+·00014	·36929	
,, ,,	14 54	2·8848	1·89	27·2	,,	5·965	82·00	23 27 50	10 21 23	26·9	6·070	82·00	A.	905·40	·36931	·36916	+·00015	·36923	
,, 11	12 47	2·8844	1·55	27·5	+0·1	6·385	82·05	23 26 42	10 21 0	27·5	6·190	82·05	A.	905·44	·36950	·36933	+·00017	·36941	
,, ,,	14 51	2·8864	1·58	27·8	,,	5·610	82·05	23 27 57	10 21 26	27·6	5·820	82·05	A.	905·27	·36911	·36896	+·00015	·36903	
,, 18	12 59	2·8837	1·44	26·3	+0·1	6·105	82·30	23 29 15	10 21 50	25·7	6·051	82·30	A.	905·75	·36934	·36924	+·00010	·36929	3·69275
,, ,,	14 30	2·8847	1·54	26·5	,,	5·894	82·30	23 28 50	10 21 46	26·1	5·971	82·30	A.	905·46	·36924	·36911	+·00013	·36917	
,, 25	13 6	2·8843	1·55	28·5	+0·1	6·575	82·60	23 25 52	10 20 40	28·1	6·458	82·60	A.	905·59	·36965	·36948	+·00017	·36956	
,, ,,	14 56	2·8862	1·48	28·6	,,	5·970	82·62	23 26 56	10 20 52	28·3	6·165	82·62	A.	905·32	·36927	·36917	+·00010	·36922	
MAR. 4	12 31	2·8842	1·48	27·9	0·0	6·297	83·40	23 26 36	10 20 50	28·3	6·057	83·40	A.	905·73	·36950	·36938	+·00012	·36944	
,, ,,	13 44	2·8857	1·51	28·6	,,	5·735	83·40	23 26 36	10 20 58	28·3	5·927	83·40	A.	905·46	·36938	·36921	+·00017	·36929	
,, 18	12 42	2·8845	1·41	29·6	+0·1	6·538	85·20	23 25 24	10 20 14	28·9	6·340	85·20	A.	905·75	·36972	·36961	+·00011	·36966	
,, ,,	13 53	2·8856	1·40	29·3	,,	5·818	85·20	23 25 47	10 20 30	29·0	6·185	85·20	A.	905·50	·36949	·36935	+·00014	·36942	·369392
,, 25	12 53	2·8847	1·45	27·8	+0·2	6·072	85·25	23 27 25	10 20 42	27·5	5·945	85·25	A.	905·46	·36941	·36942	−·00001	·36941	
,, ,,	14 9	2·8862	1·48	27·8	,,	5·670	85·25	23 28 5	10 20 52	27·7	5·845	85·25	A.	905·17	·36911	·36915	−·00004	·36913	
APRIL 1	12 42	2·8846	1·48	28·5	+0·1	6·465	85·70	23 26 18	10 20 24	28·0	6·292	85·70	A.	905·44	·36957	·36952	+·00005	·36954	
,, ,,	14 14	2·8850	1·50	28·3	,,	5·820	85·70	23 26 47	10 20 46	27·9	6·067	85·70	A.	905·46	·36945	·36936	+·00009	·36940	
,, 8	12 55	2·8852	1·38	28·0	+0·2	5·635	85·60	23 28 3	10 21 7	27·7	5·510	85·60	A.	905·63	·36927	·36923	+·00004	·36925	
,, ,,	14 29	2·8871	1·39	28·5	,,	4·930	85·60	23 28 41	10 21 5	28·0	5·180	85·60	A.	905·29	·36896	·36901	−·00005	·36898	
,, 15	13 36	2·8854	1·31	29·5	+0·2	6·035	86·20	23 26 19	10 20 21	29·0	5·900	86·20	A.	905·65	·36947	·36945	+·00002	·36946	·369314
,, ,,	15 00	2·8859	1·30	29·0	,,	5·640	86·22	23 27 16	10 20 47	29·0	5·796	86·22	A.	905·69	·36925	·36922	+·00003	·36923	
,, 22	12 56	2·8866	1·40	30·1	+0·2	5·505	86·85	23 26 30	10 20 27	29·2	5·455	86·85	A.	905·48	·36932	·36929	+·00003	·36930	
,, ,,	14 53	2·8870	1·39	29·8	,,	5·135	86·85	23 27 22	10 20 42	29·1	5·182	86·85	A.	905·50	·36915	·36915	·00000	·36915	
,, 29	12 57	2·8849	1·31	29·3	+0·5	5·940	87·55	23 26 5	10 20 5	29·8	5·871	87·55	A.	905·82	·36948	·36950	−·00002	·36949	
,, ,,	14 22	2·8867	1·30	30·3	,,	5·452	87·55	23 26 14	10 20 7	29·7	5·665	87·55	A.	905·48	·36933	·36936	−·00003	·36934	
						The mean for the months from January to April =								905·51			+·000081		
MAY 6	12 42	2·8864	1·32	30·8	0·0	6·115	88·30	23 23 37	10 19 17	30·5	6·005	88.30	A	905·15	·36965	·36961	+·00004	·36963	
,, ,,	14 15	2·8867	1·29	30·8	,,	5·535	88·32	23 23 21	10 19 5	30·5	5·862	88.32	A.	904·96	·36966	·36963	+·00003	·36964	
,, 20	12 55	3·4003	2·21	31·1	+0·2	Not available	89·80	15 21 2	6 49 8	30·9	Not available	89·80	A.	595·73	·36891	·36899	−·00008	·36895	
,, ,,	14 17	3·4010	2·20	31·4	,,	,,	89·80	15 20 57	6 49 6	31·0	,,	89·80	A.	595·62	·36886	·36894	−·00008	·36890	
,, 27	14 13	3·3974	2·36	28·5	+0·1	,,	90·00	15 21 7	6 49 15	29·1	,,	90·00	A.	595·68	·36913	·36918	−·00005	·36915	
,, ,,	15 39	3·3984	1·87	29·6	,,	,,	90·00	15 21 11	6 49 11	29·1	,,	90·00	A.	595·70	·36915	·36924	−·00009	·36919	

JUNE	10	12	47	3·3987	1·84	30·4	+0·1	5·662	88·25	15	20	48	6	49	16	29·8	4·480	88·25	A.	595·83	·36919	·36916	+·00003	·36917	
,,	,,	14	49	3·4051	1·82	30·3	,,	2·785	88·25	15	21	31	6	49	44	29·9	3·357	88·25	A.	594·98	·36833	·36825	+·00008	·36829	
,,	17	13	16	3·4001	1·75	31·1	0·0	5·275	88·80	15	20	12	6	48	42	30·8	5·165	88·80	A.	*595·51	·36913	·36925	−·00012	·36919	
,,	,,	15	3	3·4006	1·76	31·1	,,	4·778	88·80	15	20	30	6	49	18	30·8	5·070	88·80	A.	595·69	·36901	·36892	+·00009	·36896	·369037
,,	24	12	31	3·3979	1·75	29·1	+0·1	5·945	88·40	15	20	0	6	48	56	29·3	5·812	88·40	A.	595·47	·36938	·36935	+·00003	·36936	
,,	,,	13	50	3·3998	1·79	30·0	,,	5·432	88·40	15	19	40	6	48	56	29·4	5·715	88·40	A.	595·22	·36930	·36921	+·00009	·36925	
JULY	1	13	36	3·3991	1·22	30·8	+0·1	5·933	88·35	15	18	52	6	48	20	30·4	5·800	88·35	A.	595·31	·36955	·36957	−·00002	·36956	
,,	,,	15	6	3·4006	1·22	30·8	,,	5·312	88·35	15	18	48	6	48	22	30·5	5·777	88·35	A.	595·05	·36939	·36938	+·00001	·36938	
,,	9	12	45	3·3996	1·42	30·0	+0·2	5·710	87·45	15	20	22	6	49	1	29·8	5·620	87·45	A.	595·50	·36916	·36917	−·00001	·36916	
,,	,,	14	31	3·4000	1·45	29·9	,,	5·262	87·50	15	20	5	6	49	4	29·8	5·547	87·50	A.	595·37	·36916	·36910	+·00006	·36913	
,,	15	12	26	3·3999	1·48	30·1	+0·2	5·790	87·30	15	20	18	6	49	3	29·8	5·305	87·30	A.	595·44	·36915	·36912	+·00003	·36913	
,,	,,	13	42	3·3999	1·46	30·0	,,	5·178	87·30	15	19	52	6	49	0	29·8	5·190	87·30	A.	595·35	·36922	·36915	+·00007	·36918	·369254
,,	22	12	14	3·3996	1·51	30·4	+0·2	5·976	87·80	15	19	37	6	48	26	29·9	6·100	87·80	A.	595·21	·36933	·36945	−·00012	·36939	
,,	,,	13	33	3·3987	1·49	30·5	,,	5·942	87·80	15	19	31	6	48	25	29·9	6·092	87·80	A.	595·36	·36946	·36957	−·00011	·36951	
,,	29	12	40	3·3999	1·53	29·8	+0·3	5·192	87·90	15	20	40	6	48	56	29·5	5·393	87·90	A.	595·37	·36908	·36919	−·00011	·36913	
,,	,,	14	38	3·4004	1·55	29·6	,,	5·106	87·95	15	21	10	6	49	12	29·3	5·342	87·95	A.	595·42	·36894	·36901	−·00007	·36897	
AUG.	5	13	41	3·3982	1·50	28·8	+0·2	5·767	87·50	15	20	56	6	49	15	28·4	5·618	87·50	A.	595·55	·36923	·36924	−·00001	·36923	
,,	,,	14	56	3·4000	1·53	28·6	,,	5·190	87·45	15	21	1	6	49	10	28·4	5·485	87·45	A.	595·20	·36900	·36907	−·00007	·36903	
,,	12	12	54	3·3986	1·53	29·5	+0·4	5·632	87·35	15	19	59	6	48	42	29·1	5·582	87·35	A.	595·31	·36956	·36944	−·00008	·36940	
,,	,,	14	31	3·3995	1·51	29·5	,,	5·162	87·37	15	20	6	6	49	7	29·1	5·365	87·37	A.	595·33	·36925	·36916	+·00009	·36920	
,,	19	12	24	3·3987	1·54	28·8	+0·5	5·752	87·20	15	20	14	6	48	44	28·8	5·797	87·20	A.	595·22	·36928	·36939	−·00011	·36933	·369232
,,	,,	13	37	3·3989	1·51	28·8	,,	5·632	87·20	15	19	44	6	48	51	28·8	5·767	87·20	A.	595·14	·36935	·36931	+·00004	·36933	
,,	26	13	2	3·4005	1·62	29·4	+0·6	5·117	86·70	15	20	12	6	48	47	28·9	5·385	86·70	A.	595·00	·36912	·36920	−·00008	·36916	
,,	,,	14	20	3·4000	1·56	29·0	,,	5·285	86·70	15	20	12	6	48	51	28·8	5·415	86·70	A.	595·06	·36916	·36921	−·00005	·36918	
SEPT.	2	12	16	3·3998	1·54	28·5	+0·6	4·945	86·75	15	21	37	6	49	27	28·4	4·777	86·75	A.	595·40	·36890	·36895	−·00005	·36892	
,,	,,	13	47	3·4000	1·54	28·1	,,	4·862	86·75	15	22	0	6	49	46	27·9	4·654	86·75	A.	595·43	·36881	·36880	+·00001	·36880	
,,	16	12	31	3·4002	1·61	29·8	+0·3	5·392	87·70	15	19	49	6	48	31	29·7	5·450	87·70	A.	595·06	·36920	·36933	−·00013	·36926	
,,	,,	14	28	3·4002	1·59	29·8	,,	5·150	87·70	15	20	6	6	48	35	29·5	5·233	87·70	A.	595·10	·36916	·36931	−·00015	·36923	
,,	23	12	48	3·4006	1·59	29·6	+0·3	4·537	88·10	15	20	55	6	49	20	28·8	4·657	88·10	A.	595·31	·36899	·36897	+·00002	·36898	·369022
,,	,,	14	29	3·4010	1·59	29·0	,,	4·620	88·10	15	20	37	6	49	17	28·8	4·672	88·10	A.	595·09	·36896	·36890	+·00006	·36893	
,,	30	12	47	3·3999	1·54	29·6	+0·4	5·077	88·45	15	20	36	6	49	9	29·3	4·765	88·45	A.	595·39	·36910	·36909	+·00001	·36909	
,,	,,	14	7	3·4012	1·56	29·5	,,	4·652	88·40	15	20	11	6	49	12	29·3	4·675	88·40	A.	595·09	·36903	·36891	+·00012	·36897	
OCT.	7	12	59	3·4024	1·61	29·8	+0·3	5·562	88·70	15	18	15	6	48	6	29·6	5·405	88·70	A.	594·25	·36927	·36928	−·00001	·36927	
,,	,,	14	15	3·4031	1·57	29·8	,,	5·026	88·75	15	18	12	6	48	5	29·8	5·280	88·75	A	594·16	·36919	·36919	·00000	·36919	
,,	21	13	14	3·4045	1·55	30·2	+0·2	4·695	89·30	15	18	41	6	48	13	30·1	4·596	89·30	A.	594·13	·36895	·36899	−·00004	·36897	
,,	,,	14	27	3·4049	1·58	30·6	,,	4·336	89·30	15	19	2	6	48	23	30·1	4·525	89·30	A.	594·22	·36888	·36891	−·00003	·36889	·369122
,,	28	12	36	3·4021	1·93	30·7	+0·1	5·650	89·30	15	18	16	6	48	8	30·4	5·475	89·30	A.	594·51	·36928	·36928	·00000	·36928	
,,	,,	13	47	3·4030	1·86	30·8	,,	5·120	89·30	15	18	29	6	48	17	30·5	5·322	89·30	A.	594·48	·36915	·36911	+·00004	·36913	
NOV.	12	12	31	3·4051	2·01	31·2	+0·1	Not available.	89·30	15	19	26	6	48	36	30·6	not available.	89·30	A.	594·43	·36875	·36876	−·00012	·36875	
,,	,,	13	48	3·4065	1·98	30·8	,,	,,	89·30	15	19	32	6	48	31	30·7	,,	89·30	A.	594·14	·36854	·36861	−·00007	·36857	
,,	18	12	40	3·4044	1·39	30·9	+0·2	5·070	89·10	15	17	56	6	47	47	30·3	5·060	89·10	A.	594·00	·36916	·36924	−·00008	·36920	·368855
,,	,,	13	51	3·4045	1·41	30·8	,,	4·865	89·10	15	17	55	6	47	47	30·5	5·015	89·10	A.	594·00	·36912	·36921	−·00009	·36916	
,,	25	12	20	3·4054	1·27	28·9	+0·2	4·282	88·40	15	19	38	6	48	26	28·9	4·292	88·40	A	593·90	·36868	·36881	−·00013	·36874	
,,	,,	13	36	3·4063	1·34	29·5	,,	4·180	88·40	15	18	52	6	48	29	29·4	4·255	88·40	A.	593·77	·36873	·36869	+·00004	·36871	
DEC.	2	12	15	3·4046	1·20	28·8	+0·3	4·685	88·05	15	19	1	6	48	17	28·8	4·685	88·05	A	593·85	·36889	·36896	−·00007	·36892	
,,	,,	13	29	3·4057	1·22	29·1	,,	4·202	88·05	15	19	20	6	48	26	28·8	4·470	88·05	A.	593·81	·36873	·36880	−·00007	·36876	
,,	9	12	14	3·4046	1·23	27·8	+0·2	4·498	87·30	15	19	25	6	48	29	27·9	4·365	87·30	A.	593·73	·36881	·36887	−·00006	·36884	
,,	,,	13	29	3·4053	1·22	28·2	,,	4·105	87·30	15	19	43	6	48	40	27·9	4·295	87·30	A	593·77	·36871	·36874	−·00003	·36872	
,,	16	14	25	3·4013	2·63	27·3	+0·3	5·150	86·20	15	19	8	6	48	37	27·0	5·073	86·20	A.	593·99	·36917	·36911	+·00006	·36914	
,,	,,	15	59	3·4024	2·68	27·4	,,	4·860	86·20	15	19	39	6	48	39	26·8	5·020	86·20	A.	593·85	·36896	·36900	−·00004	·36898	·368883
,,	23	13	27	3·4040	2·19	27·5	+0·3	4·710	85·40	15	19	56	6	48	35	27·1	4·637	85·40	A.	593·70	·36875	·36887	−·00012	·36881	
,,	,,	14	36	3·4037	2·13	27·3	,,	4·555	85·45	15	20	8	6	48	32	27·0	4·555	85·45	A.	593·75	·36875	·36893	−·00018	·36884	
,,	30	13	3	3·4034	2·21	27·9	+0·3	5·187	84·90	15	19	20	6	48	21	28·0	5·122	84·90	A.	593·81	·36889	·36900	−·00011	·36894	
,,	,,	14	18	3·4038	2·21	28·2	,,	5·050	84·90	15	19	25	6	48	28	28·1	5·077	84·90	A.	593·85	·36884	·36892	−·00008	·36888	
The mean for the months from June to December =																				594·78	..	..	−·000028		

The mean *observed value of the horizontal force { January to April 1918 = 0·369324 ; June to December 1918 = 0·369058

*The monthly and annual means corrected for diurnal variation appear in Table VIIIa.

Absolute Magnetic Observations, Alibag—Table IIa.

OBSERVATIONS OF ABSOLUTE DECLINATION, 1918.

Taken with magnetometer no. 7 (T. Cooke and Sons).

1918. Date.	Alibag civil time.	Mean readings. Collimator magnet. Scale apparently. Erect.	Inverted.	Horizontal circle with telescope pointed to. Scale of collimator magnet.	Kennery light house.	Torsion. Mean.	Effect of 90°.	Observer.	Corresponding reading of declination magnetograms.	Absolute easterly declination corrected for torsion.	Monthly mean. Corresponding reading of declination magnetograms.	*Observed absolute easterly declination.
1	2	3	4	5	6	7	8	9	10	11	12	13
	h. m.	sc. div.	sc. div.	° ′ ″	° ′ ″	°	sc. div.		cms.	° ′ ″	cms.	° ′ ″
JAN. 3	12 39	55·6	..	84 59 15	222 24 5	0	..	A.	3·610	0 28 35		
,, 10	12 14	55·6	..	85 1 15	222 24 0	0	..	A.	3·790	0 30 40		
,, 17	11 30	55·6	..	85 2 55	222 23 55	0	..	A.	3·955	0 32 25	3·775	0 30 23
,, 24	11 55	55·6	..	85 1 30	222 24 5	0	..	A.	3·845	0 30 50		
,, 31	11 44	55·6	..	85 0 0	222 24 0	0	..	A.	3·675	0 29 25		
FEB. 7	12 2	55·6	..	85 1 25	222 23 55	0	..	A.	3·840	0 30 55		
,, 14	11 4	55·6	..	85 0 30	222 23 40	0	..	A.	3·780	0 30 15	3·747	0 29 57
,, 21	12 6	55·6	..	84 59 10	222 23 40	0	..	A.	3·620	0 28 55		
,, 28	12 1	55·6	..	85 0 30	222 24 10	0	..	A.	3·750	0 29 45		
MAR. 7	11 44	55·6	..	84 59 20	222 23 45	0	..	A.	3·640	0 29 0		
,, 14	11 58	55·6	..	84 57 35	222 23 50	0	..	A.	3·460	0 27 10	5·499	0 28 24
,, 21	11 19	55·6	..	84 58 55	222 23 55	0	..	A.	3·517	0 28 25		
,, 28	12 13	55·6	..	84 59 10	222 23 35	0	..	A.	3·380	0 29 0		
APRIL 4	11 46	55·6	..	84 58 0	222 23 45	0	..	A.	3·430	0 27 40		
,, 11	12 22	55·6	..	84 57 30	222 23 45	0	..	A.	3·350	0 27 10	3·290	0 26 55
,, 18	11 59	55·6	..	84 56 50	222 23 20	0	..	A.	3·240	0 26 55		
,, 25	12 10	55·6	..	84 56 0	222 23 30	0	..	A.	3·140	0 25 55		
MAY 2	11 35	55·6	..	84 57 0	222 23 50	0	..	A.	3·310	0 26 35		
,, 9	12 17	55·6	..	84 56 25	222 24 0	0	..	A.	3·235	0 25 50		
,, 16	12 22	55·6	..	84 57 0	222 23 45	0	..	A.	3·285	0 26 40	3·257	0 26 14
,, 23	11 48	55·6	..	84 56 20	222 23 35	0	..	A.	3·210	0 26 10		
,, 31	12 36	55·6	..	84 56 10	222 23 40	0	..	A.	3·245	0 25 55		
JUNE 6	12 1	55·6	..	84 54 20	222 23 45	0	..	A.	3·030	0 24 0		
,, 13	11 17	55·6	..	84 58 20	222 23 45	0	..	A.	3·450	0 28 0		
,, 20	11 42	55·6	..	84 57 15	222 23 40	0	..	A.	3·305	0 27 0	3·262	0 26 15
,, 27	11 39	55·6	..	84 56 15	222 23 40	0	..	A.	3·265	0 26 0		
JULY 5	13 22	55·6	..	84 56 35	222 23 45	0	..	G. S. J.	3·310	0 26 15		
,, 11	11 38	55·6	..	84 57 10	222 23 55	0	..	A.	3·350	0 26 40		
,, 18	13 13	55·6	..	84 57 10	222 24 0	0	..	A.	3·310	0 26 35	3·342	0 26 37
,, 25	11 38	55·6	..	84 57 50	222 24 15	0	..	A.	3·400	0 27 0		
AUG. 1	12 23	55·6	..	84 56 20	222 24 5	0	..	A.	3·240	0 25 40		
,, 8	11 43	55·6	..	84 57 25	222 24 15	0	..	A.	3·350	0 26 35		
,, 15	11 15	55·6	..	84 57 15	222 24 40	0	..	A.	3·325	0 26 0	3·285	0 25 41
,, 22	11 8	55·6	..	84 55 45	222 24 40	0	..	A.	3·210	0 24 30		
,, 29	11 41	55·6	..	84 56 55	222 24 40	0	..	A.	3·300	0 25 40		
SEPT. 5	11 38	55·6	..	84 55 30	222 24 25	0	..	A.	3·177	0 24 30		
,, 12	11 28	55·6	..	84 56 20	222 24 20	0	..	A.	3·280	0 25 25		
,, 19	11 44	55·6	..	84 56 50	222 24 20	0	..	A.	3·335	0 25 55	3·283	0 25 29
,, 26	11 13	55·6	..	84 57 0	222 24 20	0	..	A.	3·340	0 26 5		
OCT. 3	11 42	55·6	..	84 56 35	222 24 10	0	..	A.	3·320	0 25 50		
,, 10	11 50	55·6	..	84 56 35	222 24 0	0	..	A.	3·300	0 26 0		
,, 17	11 37	55·6	..	84 57 20	222 24 15	0	..	A.	3·327	0 26 30	3·287	0 25 55
,, 24	11 29	55·6	..	84 57 20	222 24 25	0	..	A.	3·307	0 26 20		
,, 31	11 11	55·6	..	84 55 20	222 23 50	0	..	A.	3·180	0 24 55		
NOV. 7	12 15	55·6	..	84 55 15	222 23 55	0	..	A.	3·180	0 24 45		
,, 14	12 41	55·6	..	84 56 30	222 23 55	0	..	A.	3·270	0 26 0	3·197	0 25 14
,, 21	12 2	55·6	..	84 56 10	222 23 35	0	..	A.	3·240	0 26 0		
,, 28	10 51	55·6	..	84 54 25	222 23 40	0	..	A.	3·100	0 24 10		
DEC. 5	11 32	55·6	..	84 55 55	222 24 0	0	..	A.	3·230	0 25 20		
,, 12	11 32	55·6	..	84 56 30	222 23 30	0	..	A.	3·350	0 26 25	3·305	0 25 59
,, 19	11 52	55·6	..	84 57 10	222 23 15	0	..	A.	3·410	0 27 20		
,, 26	11 35	55·6	..	84 54 40	222 23 15	0	..	A.	3·230	0 24 50		

The mean* observed declination for the year 1918 = 0 26 55

* The monthly and annual means corrected for diurnal variation appear in Table VIII.

Absolute Magnetic Observations, Alibag—Table IIb.

OBSERVATIONS OF ABSOLUTE DECLINATION, 1918.

Taken with magnetometor no. 3 (Cambridge Scientific Instrument Co.)

[The magnet belonging to the instrument no. 3 (Cambridge Scientific Instrument Co.) was used from January to the 16th May and that belonging to the instrument no. 137 (Dover Charlton) was brought into use from the 23rd May. *Vide* Introduction for further details].

1918. Date.	Alibag civil time.	Mean readings. Collimator magnet. Scale apparently. Erect.	Inverted.	Horizontal circle with telescope pointed to: Scale of collimator magnet.	Kennery light house.	Mean.	Torsion. Effect of 90°.	Observer.	Corresponding reading of declination magnetograms.	Absolute easterly declination corrected for torsion.	Monthly mean. Corresponding reading of declination magnetograms.	*Observed absolute easterly declination.
1	2	3	4	5	6	7	8	9	10	11	12	13
	h. m.	sc. div.	sc. div.	° ′ ″	° ′ ″	°	sc. div.		cms.	° ′ ″	cms.	° ′ ″
JAN. 3	13 6	35·00	34·90	275 58 10	53 23 0	0	..	A.	3·625	0 28 41		
,, 10	12 51	35·00	34·85	276 0 40	53 22 45	0	..	A.	3·855	0 31 28		
,, 17	12 45	35·00	34·90	276 0 10	53 22 40	0	..	A.	3·817	0 31 1	3·756	0 30 6
,, 24	12 25	35·00	34·90	275 59 35	53 22 40	0	..	A.	3·802	0 30 26		
,, 31	12 5	35·00	34·80	275 58 10	53 22 50	0	..	A.	3·680	0 28 56		
FEB. 7	12 35	35·00	34·90	275 59 45	53 22 45	0	..	A.	3·885	0 30 31		
,, 14	11 31	35·00	34·80	275 58 10	53 22 55	0	..	A.	3·727	0 28 51	3·755	0 29 31
,, 21	12 33	34·90	35·12	275 58 20	53 22 50	0	..	A.	3·652	0 28 42		
,, 28	12 25	35·00	34·95	275 59 20	53 22 45	0	..	A.	3·757	0 30 2		
MAR. 7	12 25	35·00	34·70	275 58 40	53 22 55	0	..	A.	3·646	0 29 27		
,, 14	12 20	35·00	34·80	275 57 0	53 22 50	0	..	A.	3·458	0 27 46	3·472	0 28 53
,, 21	11 45	35·00	34·95	275 57 20	53 22 45	0	..	A.	3·440	0 28 2		
,, 28	12 37	35·00	34·45	275 59 30	53 23 10	0	..	A.	3·345	0 30 16		
APRIL 4	12 16	35·00	34·80	275 57 15	53 22 55	0	..	A.	3·373	0 27 56		
,, 11	12 49	35·00	34·60	275 57 0	53 23 10	0	..	A.	3·345	0 27 38	3·272	0 27 2
,, 18	12 24	35·00	34·80	275 56 10	53 23 20	0	..	A.	3·200	0 26 26		
,, 25	12 44	35·00	34·70	275 55 55	53 23 30	0	..	A.	3·171	0 26 7		
MAY 2	14 14	35·00	34·92	275 57 0	53 23 10	0	..	A.	3·275	0 27 20		
,, 9	12 44	35·00	34·80	275 56 50	53 23 0	0	..	A.	3·252	0 27 26	3·294	....
,, 16	12 4	35·00	34·80	275 57 30	53 23 10	0	..	A.	3·355	0 27 56		
,, 23	12 31	44·00	44·90	275 54 25	53 23 30	0	..	A.	3·145	0 23 29	3·191	....
,, 31	13 54	43·97	44·75	275 56 0	53 23 0	0	..	A.	3·237	0 25 41		
JUNE 6	12 21	44·00	45·05	275 53 30	53 22 35	0	..	A.	3·003	0 23 21		
,, 13	11 40	44·00	45·12	275 56 40	53 22 20	0	..	A.	3·410	0 26 42	3·216	0 24 37
,, 20	12 8	44·00	44·80	275 54 25	53 23 10	0	..	A.	3·272	0 23 55		
,, 27	12 34	44·00	44·97	275 55 0	53 23 0	0	..	A.	3·181	0 24 31		
JULY 5	14 8	43·97	44·72	275 56 35	53 22 40	0	..	G. S. J.	3·377	0 26 38		
,, 11	12 4	44·00	44·90	275 56 20	53 22 50	0	..	A.	3·322	0 26 4	3·341	0 26 16
,, 18	12 39	44·00	44·90	275 56 0	53 22 50	0	..	A.	3·297	0 25 44		
,, 25	12 12	44·00	45·00	275 57 0	53 22 50	0	..	A.	3·370	0 26 39		
AUG. 1	12 45	44·00	44·45	275 56 10	53 23 0	0	..	A.	3·265	0 26 10		
,, 8	12 9	44·00	44·97	275 56 25	53 22 45	0	..	A.	3·307	0 26 11		
,, 15	11 40	44·00	44·17	275 55 40	53 22 55	0	..	A.	3·305	0 26 1	3·249	0 25 28
,, 22	11 34	44·00	44·85	275 54 10	53 23 10	0	..	A.	3·130	0 23 38		
,, 29	12 7	44·00	44·80	275 55 30	53 22 50	0	..	A.	3·240	0 25 20		
SEPT. 5	12 25	44·00	45·00	275 55 0	53 23 0	0	..	A.	3·170	0 24 29		
,, 12	12 8	44·00	44·80	275 54 50	53 23 5	0	..	A.	3·195	0 24 25	3·232	0 24 48
,, 19	12 19	44·00	44·47	275 55 0	53 23 10	0	..	A.	3·290	0 24 49		
,, 26	11 39	44·00	44·80	275 56 0	53 23 10	0	..	A.	3·272	0 25 30		
OCT. 3	12 10	44·00	45·00	275 56 20	53 23 20	0	..	A.	3·272	0 25 29		
,, 10	12 15	44·00	44·40	275 56 0	53 23 10	0	..	A.	3·285	0 25 52		
,, 17	12 4	44·00	44·80	275 56 20	53 23 10	0	..	A.	3·337	0 25 50	3·285	0 25 42
,, 24	11 59	44·00	44·60	275 55 50	53 23 0	0	..	A.	3·315	0 25 41		
,, 31	11 36	44·00	44·22	275 54 45	53 22 20	0	..	A.	3·217	0 25 38		
NOV. 7	12 48	44·00	43·90	275 54 50	53 22 50	0	..	A.	3·235	0 25 31		
,, 14	13 11	44·00	44·62	275 55 0	53 22 0	0	..	A.	3·260	0 25 50	3·224	0 25 24
,, 21	12 33	44·00	44·40	275 55 40	53 22 35	0	..	A.	3·290	0 26 7		
,, 28	11 24	44·00	44·50	275 53 10	53 22 0	0	..	A.	3·112	0 24 7		
DEC. 5	12 5	44·00	44·30	275 55 10	53 22 50	0	..	A.	3·245	0 25 28		
,, 12	11 58	44·00	44·40	275 56 10	53 22 50	0	..	A.	3·340	0 26 22	3·307	0 26 16
,, 19	12 17	44·00	44·45	275 57 0	53 22 40	0	..	A.	3·435	0 27 20		
,, 26	11 57	44·00	44·20	275 55 10	53 22 30	0	..	A.	3·207	0 25 54		

The mean* observed declination for.. { January to April 1918 = 0° 28′ 53″
June to December 1918 = 0° 25′ 30″

* The monthly and annual means corrected for diurnal variation appear in Table VIIIa.

Absolute Magnetic Observations, Alibag—Table III2.

OBSERVATIONS OF INCLINATION, 1918.

Taken with inductor no. 41 by Schulze and galvanometer no. 200 by Plath.

1918 Date.		Alibag civil time. (0 to 24 hours). At commencement. h.	m.	At conclusion. h.	m.	Observers.	Face of circle. East. °	′	West. °	′	Mean inclination. °	′	*Monthly mean inclination. °	′
JAN.	2	11	41	11	57	A. and G. P. M.	24	38·35	24	38·16	24	38·25		
,,	4	11	21	11	38	A. and G. P. M.	24	39·49	24	39·26	24	39·37		
,,	5	11	19	11	37	A. and G. P. M.	24	38·34	24	38·24	24	38·29		
,,	7	11	51	12	6	G. P. M. and A.	24	38·89	24	39·05	24	38·97		
,,	9	11	29	11	46	G. P. M. and A.	24	38·60	24	38·70	24	38·65		
,,	11	7	23	7	41	G. P. M. and A.	24	39·15	24	39·48	24	39·31		
,,	11	11	45	12	3	G. P. M. and A.	24	39·91	24	39·85	24	39·88		
,,	16	11	31	11	48	A. and G. P. M.	24	38·52	24	38·36	24	38·44		
,,	18	8	26	8	40	A. and G. P. M.	24	38·90	24	39·13	24	39·01	24	38·80
,,	19	11	52	12	5	A. and G. P. M.	24	37·74	24	38·31	24	38·02		
,,	21	11	17	11	30	G. P. M. and A.	24	38·30	24	38·56	24	38·43		
,,	23	10	53	11	4	G. P. M. and A.	24	39·26	24	39·01	24	39·13		
,,	25	7	57	8	10	G. P. M. and A.	24	39·80	24	39·53	24	39·66		
,,	26	11	15	11	26	G. P. M. and A.	24	39·36	24	39·36	24	39·36		
,,	29	11	40	11	53	A. and G. P. M.	24	37·94	24	37·53	24	37·73		
,,	30	11	39	11	55	A. and G. P. M.	24	38·20	24	38·45	24	38·32		
FEB.	1	8	23	8	38	A. and G. P. M.	24	39·55	24	39·54	24	39·54		
,,	2	11	40	11	53	A. and G. P. M.	24	38·00	24	38·39	24	38·19		
,,	4	11	20	11	36	G. P. M. and A.	24	38·36	24	38·25	24	38·30		
,,	6	11	12	11	30	G. P. M. and A.	24	39·54	24	39·48	24	39·51		
,,	8	7	53	8	9	G. P. M. and A.	24	39·48	24	39·37	24	39·42		
,,	9	10	57	11	13	G. P. M. and A.	24	38·53	24	38·87	24	38·70		
,,	11	11	34	11	53	A. and G. P. M.	24	37·95	24	38·11	24	38·03		
,,	13	12	12	12	24	A. and G. P. M.	24	40·16	24	40·43	24	40·29		
,,	15	8	3	8	22	A. and G. P. M.	24	39·32	24	38·86	24	39·09	24	38·63
,,	16	11	28	11	40	A. and G. P. M.	24	38·60	24	38·72	24	38·66		
,,	18	11	24	11	47	G. P. M. and A	24	38·20	24	38·07	24	38·13		
,,	20	11	20	11	37	G. P. M. and A.	24	37·19	24	37·63	24	37·41		
,,	22	8	11	8	28	G. P. M. and A.	24	39·97	24	40·34	24	40·15		
,,	23	11	53	12	5	G. P. M. and A.	24	37·71	24	37·51	24	37·61		
,,	25	11	40	11	55	A. and G. P. M.	24	37·55	24	37·35	24	37·45		
,,	27	11	34	11	48	A. and G. P. M.	24	37·26	24	37·81	24	37·53		
MARCH	1	8	5	8	21	A. and G. P. M.	24	38·45	24	38·97	24	38·71		
,,	2	11	41	11	56	A. and G. P. M.	24	37·48	24	37·13	24	37·30		
,,	4	11	34	11	46	G. P. M. and A.	24	38·12	24	39·06	24	38·59		
,,	6	11	20	11	35	G. P. M. and A.	24	37·49	24	38·13	24	37·81		
,,	8	7	43	8	1	G. P. M. and A.	24	42·89	24	42·76	24	42·82		
,,	9	11	30	11	47	G. P. M. and A.	24	39·12	24	39·52	24	39·32		
,,	13	12	4	12	19	A. and G. P. M.	24	38·23	24	38·08	24	38·15		
,,	15	8	24	8	41	A. and G. P. M.	24	38·16	24	38·32	24	38·24		
,,	16	11	50	12	2	A. and G. P. M.	24	36·93	24	37·55	24	37·24	24	38·22
,,	18	11	13	11	32	G. P. M. and A.	24	36·91	24	36·28	24	36·59		
,,	20	11	20	11	32	G. P. M. and A.	24	35·76	24	36·06	24	35·91		
,,	22	7	58	8	17	G. P. M. and A.	24	41·14	24	40·66	24	40·90		
,,	23	11	42	11	55	G. P. M. and A.	24	36·43	24	36·24	24	36·33		
,,	25	11	14	11	29	G. P. M. and A.	24	37·16	24	36·93	24	37·04		
,,	27	11	35	11	47	G. P. M. and A.	24	36·91	24	36·95	24	36·93		
,,	29	7	56	8	12	A. and G. P. M.	24	41·85	24	41·35	24	41·60		
,,	30	11	28	11	44	A. and G. P. M.	24	36·43	24	36·08	24	36·25		
APRIL	1	11	17	11	37	G. P. M. and A.	24	37·16	24	36·69	24	36·92		
,,	3	11	30	11	46	G. P. M. and A.	24	36·02	24	36·19	24	36·10		
,,	5	7	37	7	47	G. P. M. and A.	24	42·02	24	41·97	24	41·99		
,,	6	11	48	12	3	G. P. M. and A.	24	38·87	24	38·82	24	38·84		
,,	8	11	33	11	47	A. and G. P. M.	24	37·75	24	37·61	24	37·68		
,,	10	11	30	11	44	A. and G. P. M.	24	38·02	24	37·68	24	37·85		
,,	12	8	10	8	22	A. and G. P. M.	24	41·41	24	41·30	24	41·35		
,,	13	11	33	11	50	A. and G. P. M.	24	37·62	24	38·06	24	37·84		
,,	15	11	10	11	22	G. P. M. and A.	24	37·72	24	37·51	24	37·61	24	38·88
,,	17	11	36	11	49	G. P. M. and A.	24	37·24	24	37·40	24	37·32		
,,	19	7	30	7	39	G. P. M. and A.	24	41·85	24	41·80	24	41·82		
,,	20	13	29	13	47	G. P. M. and A.	24	40·04	24	40·15	24	40·09		
,,	22	11	39	11	50	A. and G. P. M.	24	37·62	24	37·95	24	37·78		
,,	24	11	23	11	37	G. P. M. and A.	24	37·74	24	37·74	24	37·74		
,,	26	8	18	8	34	A. and G. P. M.	24	42·71	24	41·62	24	42·16		
,,	27	13	28	13	39	A. and G. P. M.	24	40·51	24	40·33	24	40·42		
,,	29	11	15	11	31	G. P. M. and A.	24	37·57	24	37·40	24	37·48		

* The monthly and annual means corrected for diurnal variation appear in table VIII.

1918 Date.		Alibag civil time. (0 to 24 hours). At commencement. h.	m.	At conclusion. h.	m.	Observers.	Face of circle. East. °	′	West. °	′	Mean inclination. °	′	*Monthly mean inclination. °	′
MAY	1	11	30	11	43	G. P. M. and A.	24	39·36	24	39·41	24	39·38		
,,	3	7	35	7	50	G. P. M. and A.	24	41·86	24	41·96	24	41·91		
,,	4	11	40	12	3	G. P. M. and A.	24	38·18	24	37·66	24	37·92		
,,	6	11	42	11	54	A. and G. P. M.	24	37·62	24	37·31	24	37·46		
,,	8	11	49	12	7	G. P. M. and A.	24	38·79	24	39·12	24	38·95		
,,	10	8	15	8	29	G. P. M. and A.	24	41·38	24	41·70	24	41·54		
,,	11	11	55	12	13	G. P. M. and A.	24	38·49	24	38·49	24	38·49		
,,	14	12	34	12	52	A. and G. P. M.	24	40·23	24	39·87	24	40·05		
,,	15	11	30	11	47	A. and G. P. M.	24	39·23	24	39·87	24	39·55	24	40·70
,,	17	7	47	7	55	G. P. M. and A.	24	46·75	24	46·68	24	46·71		
,,	18	11	50	12	12	G. P. M. and A.	24	43·48	24	43·32	24	43·40		
,,	20	11	25	11	41	G. P. M. and A.	24	42·14	24	41·67	24	41·90		
,,	22	11	52	12	9	A. and G. P. M.	24	40·16	24	40·56	24	40·36		
,,	24	7	20	7	37	A. and G. P. M.	24	43·27	24	43·18	24	43·22		
,,	25	13	30	13	42	G. P. M. and A.	24	43·40	24	43·12	24	43·26		
,,	27	11	35	11	49	G. P. M. and A.	24	38·18	24	38·17	24	38·17		
,,	29	11	37	12	0	G. P. M. and A.	24	38·45	24	37·99	24	38·22		
,,	31	7	46	8	0	G. P. M. and A.	24	41·82	24	42·44	24	42·13		
JUNE	1	11	35	11	52	G. P. M. and A.	24	39·38	24	38·41	24	38·89		
,,	3	11	46	12	3	G. P. M. and A.	24	38·51	24	39·31	24	38·91		
,,	5	11	49	12	3	A. and G. P. M.	24	38·25	24	38·14	24	38·19		
,,	7	7	43	7	57	A. and G. P. M.	24	42·91	24	42·90	24	42·90		
,,	8	11	49	12	2	A. and G. P. M.	24	38·92	24	38·85	24	38·88		
,,	10	11	14	11	27	G. P. M. and A.	24	39·13	24	39·79	24	39·46		
,,	12	11	20	11	37	G. P. M. and A.	24	42·97	24	42·84	24	42·90		
,,	14	7	35	7	51	G. P. M. and A.	24	43·46	24	43·70	24	43·58		
,,	15	13	2	13	17	G. P. M. and A.	24	42·32	24	42·82	24	42·57	24	40·82
,,	17	11	25	11	36	G. P. M. and A.	24	42·50	24	42·56	24	42·53		
,,	19	11	19	11	31	A. and G. P. M.	24	41·08	24	40·76	24	40·92		
,,	21	7	53	8	5	A. and G. P. M.	24	42·65	24	42·53	24	42·59		
,,	22	11	38	11	49	A. and G. P. M.	24	39·62	24	39·33	24	39·47		
,,	24	11	23	11	37	G. P. M. and A.	24	39·15	24	39·37	24	39·26		
,,	26	11	15	11	33	G. P. M. and A.	24	39·81	24	40·13	24	39·97		
,,	28	7	31	7	47	G. P. M. and A.	24	43·38	24	43·43	24	43·40		
,,	29	11	30	11	43	G. P. M. and A.	24	39·66	24	39·43	24	39·54		
JULY	1	11	37	11	52	A. and G. P. M.	24	39·93	24	39·90	24	39·91		
,,	3	10	54	11	13	G. P. M.	24	40·79	24	41·39	24	41·09		
,,	5	8	9	8	22	G. P. M.	24	41·81	24	41·80	24	41·80		
,,	6	11	27	11	42	G. P. M. and A.	24	40·32	24	40·74	24	40·53		
,,	8	11	7	11	26	G. P. M. and A.	24	41·22	24	40·96	24	41·09		
,,	10	11	45	12	12	A. and G. P. M.	24	41·62	24	41·68	24	41·65		
,,	12	7	40	7	52	G. P. M. and A.	24	43·83	24	43·54	24	43·68		
,,	13	12	51	13	10	G. P. M. and A.	24	42·32	24	42·46	24	42·39		
,,	15	11	22	11	35	A. and G. P. M.	24	39·93	24	40·11	24	40·02	24	41·60
,,	17	11	32	11	46	A. and G. P. M.	24	40·44	24	40·65	24	40·54		
,,	19	7	38	7	52	A. and G. P. M.	24	43·43	24	43·67	24	43·55		
,,	20	13	9	13	22	A. and G. P. M.	24	41·65	24	41·62	24	41·63		
,,	22	11	15	11	25	G. P. M. and A.	24	41·72	24	41·99	24	41·85		
,,	24	11	22	11	34	G. P. M. and A.	24	41·01	24	41·61	24	41·31		
,,	25	7	26	7	42	G. P. M. and A.	24	42·85	24	43·00	24	42·92		
,,	27	13	4	13	17	G. P. M. and A.	24	41·28	24	40·94	24	41·11		
,,	29	11	31	11	48	A. and G. P. M.	24	41·99	24	42·21	24	42·10		
,,	31	11	22	11	35	A. and G. P. M.	24	41·48	24	41·73	24	41·60		
AUG.	2	7	50	8	3	A. and G. P. M.	24	43·36	24	43·53	24	43·44		
,,	3	11	19	11	30	A. and G. P. M.	24	40·72	24	41·04	24	40·88		
,,	5	11	19	11	35	G. P. M. and A.	24	39·86	24	39·68	24	39·77		
,,	7	11	27	11	42	G. P. M. and A.	24	42·64	24	42·91	24	42·77		
,,	9	7	35	7	48	G. P. M. and A.	24	44·44	24	44·16	24	44·30		
,,	10	13	21	13	33	G. P. M. and A.	24	40·85	24	41·02	24	40·93		
,,	12	11	47	11	59	A. and G. P. M.	24	41·30	24	41·45	24	41·37		
,,	14	11	28	11	40	A. and G. P. M.	24	41·71	24	41·95	24	41·83	24	42·29
,,	16	7	46	7	57	A. and G. P. M.	24	46·61	24	46·38	24	46·49		
,,	17	11	41	11	53	A. and G. P. M.	24	42·00	24	42·46	24	42·23		
,,	19	11	17	11	35	G. P. M. and A.	24	41·37	24	41·65	24	41·51		
,,	23	7	42	7	53	G. P. M. and A.	24	45·36	24	44·86	24	45·11		
,,	24	11	16	11	32	G. P. M. and A.	24	39·00	24	39·19	24	39·09		
,,	26	11	20	11	35	A. and G. P. M.	24	41·61	24	41·78	24	41·69		
,,	30	8	8	8	23	A. and G. P. M.	24	44·24	24	44·70	24	44·47		
,,	31	11	48	12	0	A. and G. P. M.	24	40·71	24	40·95	24	40·83		

*The monthly and annual means corrected for diurnal variation appear in table VIII.

1918		Alibag civil time. (0 to 24 hours).				Face of circle.						*Monthly mean inclination.	
Date.		At commencement.		At conclusion.		Observers.	East.		West.		Mean inclination.		
		h.	m.	h.	m.		°	′	°	′	°	′	° ′
SEPT.	2	11	20	11	32	G. P. M. and A.	24	43·05	24	43·74	24	43·39	
,,	4	11	48	11	57	G. P. M. and A.	24	42·85	24	43·10	24	42·97	
,,	6	7	25	7	38	G. P. M. and A.	24	44·83	24	45·46	24	45·14	
,,	7	11	35	11	50	G. P. M. and A.	24	41·80	24	42·07	24	41·93	
,,	11	11	22	11	35	A. and G. P. M.	24	40·59	24	40·11	24	40·35	
,,	13	7	55	8	11	A. and G. P. M.	24	44·01	24	43·69	24	43·85	
,,	14	12	21	12	40	A. and G. P. M.	24	41·72	24	41·82	24	41·77	
,,	16	11	33	11	42	G. P. M. and A.	24	42·01	24	41·73	24	41·87	24 43·04
,,	18	11	25	11	41	G. P. M. and A.	24	43·15	24	43·98	24	43·56	
,,	20	7	35	7	47	G. P. M. and A.	24	45·72	24	46·39	24	46·05	
,,	21	11	37	11	51	G. P. M. and A.	24	42·08	24	42·49	24	42·28	
,,	23	11	48	12	1	A. and G. P. M.	24	43·24	24	42·86	24	43·05	
,,	25	11	55	12	7	A. and G. P. M.	24	42·85	24	42·34	24	42·59	
,,	27	8	0	8	12	A. and G. P. M.	24	45·44	24	45·37	24	45·40	
,,	28	13	14	13	27	G. P. M. and A.	24	42·44	24	41·91	24	42·17	
,,	30	11	30	11	43	G. P. M. and A.	24	42·57	24	42·09	24	42·33	
OCT.	2	11	6	11	19	G. P. M. and A.	24	41·70	24	42·00	24	41·85	
,,	4	7	38	7	48	G. P. M. and A.	24	44·72	24	44·28	24	44·50	
,,	5	11	25	11	36	G. P. M. and A.	24	41·98	24	41·80	24	41·89	
,,	7	11	39	11	51	A. and G. P. M.	24	42·06	24	42·38	24	42·22	
,,	9	11	35	11	48	A. and G. P. M.	24	42·89	24	42·67	24	42·78	
,,	11	7	58	8	11	A. and G. P. M.	24	45·28	24	44·40	24	44·84	
,,	12	11	53	12	4	G. P. M. and A.	24	41·05	24	41·03	24	41·04	
,,	16	11	26	11	42	G. P. M. and A.	24	47·41	24	46·95	24	47·18	24 43·33
,,	18	7	45	7	56	G. P. M. and A.	24	47·30	24	46·88	24	47·09	
,,	19	11	25	11	37	G. P. M. and A.	24	42·50	24	42·23	24	42·36	
,,	21	12	0	12	23	A. and G. P. M.	24	43·10	24	43·65	24	43·37	
,,	23	11	20	11	33	A. and G. P. M.	24	41·59	24	41·96	24	41·77	
,,	25	8	11	8	34	A. and G. P. M.	24	45·42	24	45·25	24	45·33	
,,	26	13	32	13	42	A. and G. P. M.	24	43·72	24	44·58	24	44·15	
,,	28	11	30	11	44	A. and G. P. M.	24	41·83	24	41·74	24	41·78	
,,	30	10	12	10	25	G. P. M. and A.	24	41·43	24	40·74	24	41·08	
NOV.	1	7	40	7	53	G. P. M. and A.	24	46·09	24	45·31	24	45·70	
,,	6	11	36	11	47	A. and G. P. M.	24	42·87	24	43·07	24	42·97	
,,	8	7	40	7	50	A. and G. P. M.	24	45·46	24	45·66	24	45·56	
,,	9	13	19	13	30	A. and G. P. M.	24	43·46	24	43·72	24	43·59	
,,	11	11	18	11	29	A. and G. P. M.	24	44·87	24	44·44	24	44·65	
,,	13	11	28	11	41	G. P. M. and A.	24	45·82	24	45·52	24	45·67	
,,	15	7	55	8	7	G. P. M. and A.	24	47·29	24	46·43	24	46·86	
,,	16	13	2	13	17	G. P. M. and A.	24	46·28	24	46·98	24	46·63	24 45·55
,,	18	11	19	11	36	A. and G. P. M.	24	46·11	24	45·76	24	45·93	
,,	20	11	15	11	37	A. and G. P. M.	24	44·35	24	43·84	24	44·09	
,,	22	7	43	8	2	A. and G. P. M.	24	45·19	24	45·50	24	45·34	
,,	23	13	24	13	37	A. and G. P. M.	24	48·11	24	47·96	24	48·03	
,,	25	11	3	11	19	G. P. M and A.	24	45·74	24	45·78	24	45·76	
,,	29	8	2	8	14	G. P. M. and A.	24	45·28	24	45·48	24	45·38	
,,	30	11	19	11	37	G. P. M. and A.	24	47·25	24	47·01	24	47·13	
DEC.	2	11	17	11	31	A. and G. P. M.	24	45·99	24	46·33	24	46·16	
,,	4	11	38	11	56	A. and G. P. M.	24	45·93	24	46·02	24	45·97	
,,	6	8	4	8	25	A. and G. P. M.	24	45·83	24	45·84	24	45·83	
,,	7	12	15	12	35	A. and G. P. M.	24	44·30	24	44·97	24	44·63	
,,	9	11	4	11	21	G. P. M. and A.	24	47·00	24	47·11	24	47·05	
,,	11	11	41	11	50	G. P. M. and A.	24	46·36	24	46·74	24	46·55	
,,	13	7	49	8	1	G. P. M. and A.	24	46·80	24	46·64	24	46·72	
,,	14	13	0	13	15	G. P. M. and A.	24	45·93	24	45·91	24	45·92	24 46·11
,,	16	11	40	11	52	A. and G. P. M.	24	44·57	24	44·59	24	44·58	
,,	18	11	40	11	51	A. and G. P. M.	24	44·90	24	45·30	24	45·10	
,,	20	7	59	8	11	A. and G. P. M.	24	47·49	24	47·10	24	47·29	
,,	21	11	45	11	57	A. and G. P. M.	24	46·78	24	46·75	24	46·76	
,,	23	11	10	11	23	G. P. M. and A.	24	45·25	24	45·23	24	45·24	
,,	27	8	15	8	28	G. P. M. and A.	24	48·06	24	48·16	24	48·11	
,,	28	13	10	13	21	G. P. M. and A.	24	46·18	24	46·30	24	46·24	
,,	30	11	50	12	2	A. and G. P. M.	24	45·40	24	45·88	24	45·64	
											The mean* observed inclination for the year 1918=		24° 41′·50

* The monthly and annual means corrected for diurnal variation appear in table VIII.

Absolute Magnetic Observations, Alibag—Table IIIb.

OBSERVATIONS OF INCLINATION, 1918.

Taken with inductor no. 108 and galvanometer no. 108A by Otto Toepfer and Sons.

1918. Date.		Alibag civil time. (0 to 24 hours). At commencement. H.	m.	At conclusion. H.	m.	Observers.	Face of circle. East. °	′	West. °	′	Mean inclination. °	′	*Monthly mean inclination. °	′
JAN.	1	12	5	12	27	A. and G. P. M.	24	39·55	24	39·42	24	39·48		
,,	3	11	8	11	29	G. P. M. and A.	24	39·21	24	39·25	24	39·23		
,,	4	12	6	12	25	A. and G. P. M.	24	39·84	24	40·05	24	39·94		
,,	8	11	30	11	42	G. P. M. and A.	24	40·15	24	40·12	24	40·13		
,,	11	8	10	8	34	G. P. M. and A.	24	40·92	24	40·99	24	40·95		
,,	12	11	29	11	54	G. P. M. and A.	24	40·39	24	40·04	24	40·21		
,,	15	11	34	11	55	A. and G. P. M.	24	39·02	24	38·83	24	38·92	24	39·53
,,	18	7	43	7	58	A. and G. P. M.	24	40·26	24	40·50	24	40·38		
,,	18	11	29	11	42	A. and G. P. M.	24	38·74	24	38·76	24	38·75		
,,	22	11	24	11	47	G. P. M. and A.	24	38·03	24	38·31	24	38·17		
,,	25	7	22	7	37	G. P. M. and A.	24	40·48	24	40·10	24	40·29		
,,	25	11	14	11	28	G. P. M. and A.	24	39·06	24	39·12	24	39·09		
,,	28	12	0	12	14	A. and G. P. M.	24	38·42	24	38·22	24	38·32		
FEB.	1	7	42	8	4	A. and G. P. M.	24	41·22	24	40·87	24	41·04		
,,	1	11	45	12	6	A. and G. P. M.	24	39·59	24	39·76	24	39·67		
,,	5	11	15	11	36	G. P. M. and A.	24	38·79	24	38·69	24	38·74		
,,	8	7	10	7	37	G. P. M. and A.	24	40·76	24	40·82	24	40·79		
,,	8	11	12	11	27	G. P. M. and A.	24	39·23	24	39·26	24	39·24		
,,	12	12	5	12	27	A. and G. P. M.	24	39·74	24	40·02	24	39·88		
,,	15	7	24	7	40	A. and G. P. M.	24	41·03	24	40·57	24	40·80	24	40·04
,,	15	11	21	11	37	A. and G. P. M.	24	39·09	24	38·24	24	38·66		
,,	19	11	50	12	4	G. P. M. and A.	24	40·42	24	40·61	24	40·51		
,,	22	7	28	7	50	G. P. M. and A.	24	42·16	24	41·99	24	42·07		
,,	22	11	31	11	47	G. P. M. and A.	24	40·36	24	39·72	24	40·04		
,,	26	11	29	11	50	G. P. M. and A.	24	38·81	24	39·26	24	39·03		
MARCH	1	7	24	7	44	A. and G. P. M.	24	41·73	24	41·67	24	41·70		
,,	1	11	44	12	0	A. and G. P. M.	24	40·55	24	40·75	24	40·65		
,,	5	11	20	11	33	G. P. M. and A.	24	39·87	24	39·84	24	39·85		
,,	8	7	5	7	26	G. P. M. and A.	24	44·67	24	44·49	24	44·58		
,,	8	11	44	12	0	G. P. M. and A.	24	44·29	24	43·25	24	43·77		
,,	12	11	21	11	40	A. and G. P. M.	24	42·29	24	42·17	24	42·23		
,,	15	7	33	7	56	A. and G. P. M.	24	41·65	24	41·15	24	41·40	24	41·39
,,	15	11	56	12	19	A. and G. P. M.	24	39·45	24	38·98	24	39·21		
,,	19	11	21	11	37	G. P. M. and A.	24	39·24	24	39·01	24	39·12		
,,	22	7	15	7	32	G. P. M. and A.	24	43·03	24	42·52	24	42·77		
,,	22	11	15	11	33	G. P. M. and A.	24	40·61	24	39·93	24	40·27		
,,	26	11	35	11	53	A. and G. P. M.	24	38·98	24	38·35	24	38·66		
,,	29	7	13	7	29	A. and G. P. M.	24	43·78	24	43·92	24	43·85		
APRIL	2	11	15	11	32	G. P. M. and A.	24	38·55	24	39·18	24	38·86		
,,	5	7	1	7	22	G. P. M. and A.	24	44·54	24	44·21	24	44·37		
,,	5	11	35	11	49	G. P. M. and A.	24	40·34	24	40·40	24	40·37		
,,	9	11	41	11	58	A. and G. P. M.	24	38·82	24	38·96	24	38·89		
,,	12	7	25	7	42	A. and G. P. M.	24	43·44	24	43·37	24	43·40		
,,	12	13	16	13	28	A. and G. P. M.	24	43·00	24	42·99	24	42·99	24	41·67
,,	16	11	35	11	47	G. P. M. and A.	24	39·49	24	39·10	24	39·29		
,,	19	6	55	7	12	G. P. M. and A.	24	44·23	24	44·20	24	44·21		
,,	23	11	32	11	44	A. and G. P. M.	24	39·36	24	39·14	24	39·25		
,,	26	7	36	7	51	A. and G. P. M.	24	45·00	24	45·11	24	45·05		
,,	26	13	15	13	33	A. and G. P. M.	24	44·10	24	44·05	24	44·07		
,,	30	11	45	12	5	G. P. M. and A.	24	39·32	24	39·29	24	39·30		
MAY	3	6	58	7	19	G. P. M. and A.	24	45·35	24	44·80	24	45·07		
,,	3	12	58	13	18	G. P. M. and A.	24	39·09	24	38·83	24	38·96		
,,	7	13	8	13	24	G. P. M. and A.	24	42·56	24	42·61	24	42·58		
,,	10	7	27	7	49	G. P. M. and A.	24	44·26	24	44·42	24	44·34		
,,	10	13	25	13	37	G. P. M. and A.	24	41·18	24	41·68	24	41·43		
,,	13	14	5	14	18	A. and G. P. M.	24	42·04	24	42·33	24	42·18		
,,	17	7	8	7	27	G. P. M. and A.	24	46·34	24	46·15	24	46·24	24	42·81
,,	17	13	25	13	43	A. and G. P. M.	24	45·92	24	45·39	24	45·65		
,,	21	11	50	12	4	G. P. M. and A.	24	40·97	24	40·40	24	40·68		
,,	24	6	45	7	0	A. and G. P. M.	24	43·81	24	44·12	24	43·96		
,,	24	13	8	13	31	G. P. M. and A.	24	41·50	24	41·37	24	41·43		
,,	28	12	0	12	28	G. P. M. and A.	24	39·64	24	39·72	24	39·68		
,,	31	7	2	7	22	G. P. M. and A.	24	44·92	24	44·16	24	44·54		
,,	31	14	38	14	57	G. P. M. and A.	24	42·81	24	42·41	24	42·61		

*The monthly and annual means corrected for diurnal variation appear in table VIIIa.

1918. Date.		Alibag civil time. (0 to 24 hours). At commencement. H.	m.	At conclusion. H.	m.	Observers.	Face of circle. East. °	′	West. °	′	Mean inclination. °	′	*Monthly mean inclination. °	′
JUNE	4	11	30	11	43	A. and G. P. M.	24	39·46	24	38·57	24	39·01		
,,	7	7	12	7	28	A. and G. P. M.	24	44·59	24	44·99	24	44·79		
,,	7	13	22	13	38	A. and G. P. M.	24	41·36	24	40·72	24	41·04		
,,	11	11	45	12	3	G. P. M. and A.	24	41·21	24	41·02	24	41·11		
,,	14	7	2	7	22	G. P. M. and A.	24	45·75	24	44·82	24	45·28		
,,	14	13	1	13	27	G. P. M. and A.	24	43·34	24	43·19	24	43·26	24	42·37
,,	18	11	28	11	42	A. and G. P. M.	24	41·32	24	41·20	24	41·26		
,,	21	7	21	7	40	A. and G. P. M.	24	45·54	24	44·90	24	45·22		
,,	21	13	2	13	27	A. and G. P. M.	24	41·90	24	41·48	24	41·69		
,,	25	11	27	11	42	G. P. M. and A.	24	40·81	24	41·01	24	40·91		
,,	28	7	2	7	12	G. P. M. and A.	24	44·66	24	44·21	24	44·43		
,,	28	12	53	13	10	G. P. M. and A.	24	40·54	24	40·43	24	40·48		
JULY	2	11	42	12	0	G. P. M.	24	40·62	24	41·19	24	40·90		
,,	5	7	34	7	54	G. P. M.	24	44·27	24	43·76	24	44·01		
,,	5	12	48	13	4	G. P. M.	24	42·11	24	42·01	24	42·06		
,,	9	11	19	11	32	G. P. M. and A.	24	42·15	24	41·86	24	42·00		
,,	12	6	58	7	12	G. P. M. and A.	24	45·75	24	45·43	24	45·59		
,,	12	12	46	13	9	G. P. M. and A.	24	42·52	24	42·00	24	42·26		
,,	16	12	45	12	58	A. and G. P. M.	24	43·20	24	43·19	24	43·19	24	42·61
,,	19	7	10	7	22	A. and G. P. M.	24	45·04	24	44·77	24	44·90		
,,	19	12	43	12	53	A. and G. P. M.	24	40·96	24	40·99	24	40·97		
,,	23	11	22	11	37	G. P. M. and A.	24	40·86	24	40·32	24	40·59		
,,	26	6	58	7	13	G. P. M. and A.	24	44·73	24	44·29	24	44·51		
,,	26	12	50	13	6	G. P. M. and A.	24	41·44	24	40·90	24	41·17		
,,	30	13	28	13	42	A. and G. P. M.	24	41·64	24	41·87	24	41·75		
AUG.	2	7	20	7	34	A. and G. P. M.	24	45·02	24	45·02	24	45·02		
,,	2	13	11	13	24	A. and G. P. M.	24	42·38	24	42·43	24	42·40		
,,	6	13	19	13	32	G. P. M. and A.	24	44·12	24	44·00	24	44·06		
,,	9	7	3	7	22	G. P. M. and A.	24	46·41	24	46·59	24	46·50		
,,	9	13	10	13	29	G. P. M. and A.	24	44·37	24	44·62	24	44·49		
,,	13	13	8	13	20	A. and G. P. M.	24	42·63	24	42·02	24	42·32		
,,	16	7	15	7	30	A. and G. P. M.	24	46·92	24	47·19	24	47·05		
,,	16	13	13	13	25	A. and G. P. M.	24	44·68	24	44·61	24	44·64	24	44·23
,,	20	11	15	11	31	G. P. M. and A.	24	42·26	24	41·90	24	42·08		
,,	23	7	12	7	25	G. P. M. and A.	24	47·01	24	46·52	24	46·76		
,,	23	13	7	13	23	G. P. M. and A.	24	42·75	24	42·71	24	42·73		
,,	27	11	31	11	47	A. and G. P. M.	24	42·48	24	41·96	24	42·22		
,,	30	7	28	7	46	A. and G. P. M.	24	45·68	24	45·71	24	45·69		
,,	30	13	19	13	30	A. and G. P. M.	24	43·31	24	43·17	24	43·24		
SEPT.	3	12	30	12	43	G. P. M. and A.	24	43·89	24	43·12	24	43·50		
,,	6	6	54	7	12	G. P. M. and A.	24	46·22	24	45·61	24	45·91		
,,	6	13	9	13	28	G. P. M. and A.	24	44·71	24	44·54	24	44·62		
,,	10	13	19	13	31	A. and G. P. M.	24	42·79	24	42·47	24	42·63		
,,	13	7	20	7	35	A. and G. P. M.	24	46·19	24	46·11	24	46·15		
,,	13	13	29	13	42	G. P. M. and A.	24	42·94	24	43·46	24	43·20	24	44·47
,,	17	11	30	11	49	G. P. M. and A.	24	43·30	24	43·13	24	43·21		
,,	20	7	4	7	22	G. P. M. and A.	24	46·62	24	46·42	24	46·52		
,,	20	13	21	13	35	G. P. M. and A.	24	45·01	24	44·08	24	44·54		
,,	24	11	29	11	42	A. and G. P. M.	24	42·39	24	42·11	24	42·25		
,,	27	7	20	7	37	A. and G. P. M.	24	46·85	24	46·32	24	46·58		
,,	27	13	29	13	40	A. and G. P. M.	24	44·58	24	44·50	24	44·54		
OCT.	1	11	35	11	49	G. P. M. and A.	24	44·00	24	43·43	24	43·71		
,,	4	7	10	7	22	G. P. M. and A.	24	45·42	24	45·47	24	45·44		
,,	4	13	6	13	21	G. P. M. and A.	24	42·90	24	43·01	24	42·95		
,,	8	11	30	11	42	A. and G. P. M.	24	41·79	24	41·55	24	41·67		
,,	11	7	28	7	40	A. and G. P. M.	24	46·30	24	45·84	24	46·07		
,,	11	12	55	13	16	A. and G. P. M.	24	43·13	24	43·41	24	43·27		
,,	15	11	20	11	35	G. P. M. and A.	24	40·22	24	40·17	24	40·19	24	44·04
,,	18	7	15	7	32	G. P. M. and A.	24	48·17	24	47·41	24	47·79		
,,	18	13	20	13	36	G. P. M. and A.	24	47·00	24	46·37	24	46·68		
,,	22	11	46	12	4	A. and G. P. M.	24	42·95	24	43·60	24	43·27		
,,	25	7	20	7	41	A. and G. P. M.	24	46·72	24	46·15	24	46·43		
,,	25	13	22	13	34	A. and G. P. M.	24	43·10	24	42·88	24	42·99		
,,	29	11	36	11	52	G. P. M. and A.	24	42·19	24	42·02	24	42·10		
NOV.	1	7	11	7	22	G. P. M. and A.	24	47·88	24	47·39	24	47·63		
,,	1	13	15	13	31	G. P. M. and A.	24	45·08	24	44·49	24	44·78		
,,	5	13	18	13	32	A. and G. P. M.	24	46·08	24	45·08	24	45·58		
,,	8	7	14	7	26	A. and G. P. M.	24	46·80	24	46·50	24	46·65		
,,	8	13	18	13	31	A. and G. P. M.	24	44·78	24	44·45	24	44·61		

* The monthly and annual means corrected for diurnal variation appear in table VIIIa.

1918 Date.		Alibag civil time. (0 to 24 hours). At commencement. H.	m.	At conclusion. H.	m.	Observers.	Face of circle. East. °	′	West. °	′	Mean inclination. °	′	*Monthly mean inclination. °	
Nov.	12	11	17	11	31	G. P. M. and A.	24	45·89	24	45·20	24	45·54		
,,	15	7	16	7	32	G. P. M. and A.	24	47·04	24	46·54	24	46·79		
,,	15	13	1	13	14	G. P. M. and A.	24	46·37	24	46·80	24	46·58		
,,	19	11	32	11	50	A. and G. P. M.	24	45·16	24	44·77	24	44·96	24	45.89
,,	22	7	15	7	26	A. and G. P. M.	24	46·61	24	46·47	24	46·54		
,,	22	13	14	13	25	A. and G. P. M.	24	45·41	24	45·07	24	45·24		
,,	26	13	0	13	13	G. P. M. and A.	24	46·26	24	46·03	24	46·14		
,,	29	7	25	7	47	G. P. M. and A.	24	46·07	24	46·12	24	46·09		
,,	29	13	9	13	24	G. P. M. and A.	24	45·35	24	45·23	24	45·29		
Dec.	3	11	21	11	34	A. and G. P. M.	24	45·43	24	45·75	24	45·59		
,,	6	7	40	7	52	A. and G. P. M.	24	47·27	24	46·61	24	46·94		
,,	6	13	37	13	49	A. and G. P. M.	24	46·50	24	46·13	24	46·31		
,,	10	11	15	11	32	G. P. M. and A.	24	45·87	24	45·62	24	45·74		
,,	13	7	20	7	36	G. P. M. and A.	24	48·19	24	47·37	24	47·78		
,,	13	12	59	13	13	G. P. M. and A.	24	46·02	24	45·77	24	45·89		
,,	17	11	28	11	42	A. and G. P. M.	24	45·24	24	44·66	24	44·95	24	46·41
,,	20	7	24	7	42	A. and G. P. M.	24	47·20	24	47·04	24	47·12		
,,	20	13	20	13	33	A. and G. P. M.	24	46·85	24	46·11	24	46·48		
,,	24	11	5	11	20	G. P. M. and A.	24	45·88	24	45·67	24	45·77		
,,	27	7	40	7	52	G. P. M. and A.	24	48·03	24	47·45	24	47·74		
,,	27	13	26	13	38	G. P. M. and A.	24	46·77	24	46·45	24	46·61		
,,	31	12	3	12	22	A. and G. P. M.	24	46·62	24	46·10	24	46·36		
						The mean * observed inclination for the year 1918=							24° 42′·95	

*The monthly and annual means corrected for diurnal variation appear in table VIIIa.

Absolute Magnetic Observations, Alibag—Table Ia.

Observations of vibration and deflection, taken with magnetometer no. 7 (T. Cooke & Sons) for the determination of absolute horizontal force.

1919.

1919. Date.	Civil time, mean.	Vibration magnet. Time of one vibration.	Effect of 90° torsion.	Temperature.	Rate of chronometer.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Angle of deflection of magnet marked 7. Distance. 22·5 cms.	30·0 cms.	Temperature.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Observer.	Values of m.	Calculated results in C. G. S. unit. Values of H. From deflection at distance. 22·5 cms. (H 22·5).	30·0 cms. (H 30·0).	Difference. $H_{22·5}-H_{30·0}$	Mean. $\frac{H_{22·5}+H_{30·0}}{2}$	* Observed monthly mean values of H.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	H. m.	S.	Sc. div.	°	S.	Cms.	°	° ′ ″	° ′ ″	°	Cms.	°							
JAN. 2	12 47	2·7079	1·51	27·0	+0·2	5·532	84·90	26 32 20	10 47 50	27·5	5·457	84·90	A.	936·50	0·36918	0·36918	0·00000	0·36918	
,, ,,	14 3	2·7087	1·51	27·7	,,	5·240	84·90	26 32 39	10 47 56	27·6	5·365	84·90	A.	936·48	·36910	·36910	·00000	·36910	
,, 8	12 5	2·7090	1·49	28·3	+0·1	5·202	84·85	26 32 12	10 47 53	28·4	5·117	84·85	A.	936·61	·36908	·36905	+·00003	·36906	
,, ,,	13 20	2·7100	1·50	28·8	,,	4·927	84·80	26 32 0	10 47 45	28·6	5·117	84·80	A.	936·35	·36899	·36897	+·00002	·36898	
,, 15	12 53	2·7069	1·47	25·7	+0·2	5·250	84·00	26 34 17	10 48 48	26·0	5·090	84·00	A.	936·35	36914	36907	+·00007	·36910	0·369066
,, ,,	14 6	2·7085	1·47	26·5	,,	4·957	84·00	26 34 31	10 48 51	26·1	5·037	84·00	A.	936·53	·36895	·36889	+·00006	·36892	
,, 22	12 57	2·7068	1·49	26·9	+0·2	5·500	83·70	26 32 45	10 48 14	27·1	5·362	83·70	A.	936·96	·36932	·36924	+·00008	·36928	
,, ,,	14 2	2·7092	1·49	28·0	,,	5·282	83·70	26 32 44	10 48 7	27·5	5 312	83·70	A.	936·44	·36905	·36901	+·00004	·36903	
,, 29	12 31	2·7077	1·49	26·9	+0·1	5·440	83·20	26 33 43	10 48 25	27·0	5·290	83 20	A.	936·83	·36910	·36908	+·00002	·36909	
,, ,,	14 13	2·7091	1·49	27·0	,,	5·250	83·20	26 33 46	10 48 22	27·0	5·202	83·20	A.	936·38	·36892	·36892	·00000	·36892	
FEB. 5	12 31	2·7102	1·49	26·0	+0·2	5·210	82·70	26 34 27	10 48 57	25·9	5·136	82·70	A.	935·81	·36871	·36861	+·00010	·36866	
,, ,,	13 42	2·7083	1·50	26·0	,,	5·076	82·70	26 34 53	10 48 55	25·9	5·092	82·70	A.	936·50	·36891	·36888	+·00003	·36889	
,, 12	12 51	2·7072	1·63	26·7	+0·2	6·072	82·65	26 32 13	10 47 48	27·0	5·897	82·65	A.	936·53	·36931	·36930	+·00001	·36930	
,, ,,	14 3	2·7083	1·62	27·0	,,	5·597	82·65	26 32 45	10 48 0	27·0	5·790	82·65	A.	936·25	·36912	·36911	+·00001	·36911	·369121
,, 19	12 1	2·7052	1·54	25·0	+0·2	6·247	82·30	26 33 31	10 48 21	25·0	6·210	82·30	A.	936·76	·36948	·36945	+·00003	·36946	
,, ,,	13 32	2·7060	1·54	25·2	,,	5·892	82·30	26 33 22	10 48 28	25·0	6·150	82·30	A.	936·55	·36940	·36933	+·00007	36936	
,, 26	13 17	2·7076	1·60	27·0	+0·2	5·622	82·60	26 33 1	10 48 12	27·0	5·457	82·60	A.	936·72	·36920	·36916	+·00004	·36918	
,, ,,	14 26	2·7083	1·62	27·0	,,	5·117	82·60	26 33 37	10 48 25	27·0	5·345	82·60	A.	936·61	36903	·36900	+·00003	·36901	
MARCH 5	13 0	2·7065	1·57	26·9	+0·3	6·070	82·90	26 32 21	10 47 54	26·7	5·875	82·90	A.	936·81	·36944	·36941	+·00003	·36942	
,, ,,	14 12	2·7078	1·61	27·0	,,	5·342	82·90	26 32 57	10 48 6	26·9	5·632	82·90	A.	936·55	·36918	·36916	+·00002	·36917	
,, 12	12 28	2·7085	1·61	28·6	+0·2	5·575	83·55	26 31 42	10 47 30	28·5	5·300	83·55	A.	936·68	·36921	·36923	−·00002	·36922	
,, ,,	13 36	2·7093	1·57	28·7	,,	5·170	83·55	26 31 51	10 47 25	28·7	5·355	83·55	A.	936·46	·36908	·36914	−·00006	·36911	369264
,, 19	13 4	2·7069	1·53	27·7	+0·2	6·095	83·90	26 31 16	10 47 36	27·5	5·950	83·90	A.	936·79	·36950	·36945	+·00005	·36947	
,, ,,	14 13	2·7079	1·56	27·6	,,	5·707	83·90	26 31 35	10 47 45	27·5	5·850	83·90	A.	936 53	·36932	·36926	+·00006	·36929	
,, 26	13 40	2·7081	1·66	28·9	+0·3	5·707	84·25	26 30 55	10 47 35	28·9	5·512	84·25	A.	936·89	·36934	·36926	+·00008	·36930	
,, ,,	14 48	2·7090	1·63	29·0	,,	5·105	84·25	26 31 10	10 47 47	29·0	5·327	84·25	A.	936·72	·36919	·36908	+·00011	·36913	
APRIL 2	12 22	2·7075	1·67	30·0	+0·2	6·485	85·15	26 28 42	10 46 33	29·5	6·295	85·15	A.	936·79	·36970	·36967	+·00003	·36968	
,, ,,	13 43	2·7070	1·67	29·1	,,	5·925	85·15	26 29 10	10 46 41	29·1	6·205	85·15	A.	936·79	·36967	·36966	+·00001	·36966	
,, 10	12 17	2·7085	1·62	29·1	+0·3	5·635	86·10	26 30 1	10 47 4	29·0	5·615	86·10	A.	936·50	·36939	·36935	+·00004	·36937	
,, ,,	13 35	2·7091	1·62	29·3	,,	5·150	86·10	26 30 26	10 47 15	29·0	5·465	86·10	A.	936·48	·36928	·36924	+·00004	·36926	
,, 16	12 42	2·7089	1·65	29·4	+0·2	5·805	86·80	26 28 6	10 46 5	30·0	5·805	86·80	M. D. K.	935·05	·36947	·36951	−·00004	·36949	·369399
,, ,,	14 6	2·7099	1·62	30·4	,,	5·585	86·80	26 28 26	10 46 31	30·2	5·690	86·80	M. D. K.	936·18	·36938	·36933	+·00005	·36935	
,, 23	12 18	2·7106	1·60	30·3	+0·2	5·030	87·40	26 29 13	10 46 43	30·6	5·090	87·40	M. D. K.	936·16	·36915	·36912	+·00003	·36913	
,, ,,	13 30	2·7108	1·59	31·0	,,	4·760	87·40	26 29 1	10 46 38	31·0	5·052	87·40	M. D. K.	936·29	·36916	·36915	+·00001	·36915	
,, 30	12 19	2·7085	1·69	30·8	+0·2	5·935	88·00	26 27 51	10 46 5	30·9	5·640	88·00	M. D. K.	936·66	·36969	·36961	−·00001	·36960	
,, ,,	13 27	2·7099	1·64	30·0	,,	5·375	88·00	26 28 55	10 46 17	30·5	5 500	88·00	M. D. K.	936 14	·36927	·36933	−·00006	·36930	

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1919.	Vibration magnet.				Rate of chrono-meter.	Corresponding mean reading of H. F. magnetograph.		Angle of deflection of magnet marked 7.			Corresponding mean reading of H. F. magnetograph.		Obser-ver.	Calculated results in C. G. S. unit.					*Observed monthly mean values of H.
								Distance.						Values of m.	Values of H.				
Date.	Civil time, mean.	Time of one vibra-tion.	Effect of 90° torsion.	Tem-perature.		Ordi-nate.	Thermo-meter.	22·5 cms.	30·0 cms.	Temper-ature.	Ordi-nate.	Ther-mome-ter.			From deflection at distance.		Difference.	Mean.	
															22·5 cms. ($H_{22·5}$).	30·0 cms. ($H_{30·0}$).	$H_{22·5}-H_{30·0}$	$\frac{H_{22·5}+H_{30·0}}{2}$	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	H. m.	S.	Sc. div.	°	S	Cms.	°	° ′ ″	° ′ ″	°	Cms.	°							
Dec. 3	11 46	2·7072	1·51	29·0	0·0	5·857	87·60	26 28 37	10 46 31	29·3	5·775	87·60	A.	936·61	0·36969	0·36966	+·00003	0·36967	
,, ,,	12 58	2·7085	1·50	29·9	,,	5·842	87·60	26 27 54	10 46 10	29·7	5·815	87·60	A.	936·22	·36963	·36962	+·00001	·36962	
,, 10	14 8	2·7072	1·48	28·7	+0·3	5·870	86·80	26 29 13	10 46 42	28·5	5 832	86·80	A.	936·53	·36967	·36965	+·00002	·36966	
,, ,,	15 19	2·7082	1·51	28·5	,,	5·395	86·80	26 29 49	10 46 55	28·3	5·752	86·80	A.	936·25	·36947	·36945	+·00002	·36946	
,, 17	12 14	2·7076	1·51	27·0	+0·8	5·015	86·15	26 31 27	10 47 35	28·0	4·040	86·15	A.	936·50	·36928	·36925	+·00003	·36926	0·369369
,, ,,	13 26	2·7102	1·51	29·7	,,	4·732	86·15	26 30 54	10 47 27	28·8	4·860	86·15	A.	936·29	·36915	·36910	+·00005	·36912	
,, 24	11 57	2·7087	1·50	27·1	+0·6	4·765	85·77	26 33 3	10 48 5	27·1	4·800	85·77	A.	936·33	·36905	·36905	·00000	·36905	
,, ,,	13 12	2·7086	1·53	27·4	,,	4·745	85·77	26 32 57	10 48 2	27·1	4·755	85·77	A.	936·42	·36910	·36911	−·00001	·36910	
,, 31	12 26	2·7066	1·50	26·1	+0·6	5·735	84·75	26 32 32	10 48 1	26·3	5·565	84·75	A.	936·59	·36938	·36934	+·00004	·36936	
,, ,,	13 36	2·7067	1·54	26·9	,,	5·412	84·75	26 32 23	10 47 52	26·7	5·477	84·75	A.	936·74	·36940	·36939	+·00001	·36939	
														Mean for the year =	936·48		+·000028		

The mean* observed value of the horizontal force for the year 1919 = 0·369240

* The monthly and annual means corrected for diurnal variation appear in table VIII.

Absolute Magnetic Observations, Alibag—Table Ib.

Observations of vibration and deflection, taken with magnetometer no. 3 (Cambridge Scientific Instrument Co.) and magnets belonging to magnetometer no. 137 (Dover Charlton) for the determination of absolute horizontal force.

1919.

1919. Date.	Civil time, mean.	Vibration magnet. Time of one vibration.	Effect of 90° torsion.	Temperature.	Rate of chronometer.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Angle of deflection. Distance. 23 cms.	30 cms.	Temperature.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Observer.	Calculated results in C. G. S. unit. Values of m.	Values of H. From deflection at distance. 23 cms. (H_{23}).	30 cms. (H_{30}).	Difference. $H_{23}-H_{30}$	Mean. $\frac{H_{23}+H_{30}}{2}$	*Observed monthly mean values of H.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	H. m.	S.	Sc. div.	°	S	Cms.	°	° ′ ″	° ′ ″	°	Cms.	°							
JAN. 6	12 32	3·4035	2·18	27·8	+0·1	4·710	84·90	15 19 42·6	48 40	27·8	4·612	84·90	A.	593·92	0·36882	0·36885	—·00003	0·36883	
,, ,,	14 16	3·4044	2·18	28·2	,,	4·190	84·90	15 20 7·6	48 47	27·9	4·410	84·90	A.	593·95	·36866	·36872	—·00006	·36869	
,, 13	13 6	3·4021	2·16	25·7	+0·1	5·095	84·10	15 21 33·6	49 26	25·7	4·077	84·10	A.	594·20	·36862	·36868	—·00006	·36865	
,, ,,	14 39	3·4049	2·15	25·8	,,	3·862	84·10	15 21 14·6	49 16	25·6	3·812	84·10	A.	593·61	·36840	·36847	—·00007	·36843	0·368906
,, 20	12 37	3·4006	2·23	26·2	+0·2	5·550	83·70	15 18 38·6	48 25	26·6	5·390	83·70	A.	593·80	·36930	·36925	+·00005	·36927	
,, ,,	13 51	3·4029	2·21	26·8	,,	5·090	83·70	15 18 26·6	48 20	26·7	5·307	83·70	A.	593·44	·36914	·36908	+·00006	·36911	
,, 27	13 55	3·4003	2·21	25·8	+0·1	6·090	83·20	15 18 26·6	48 12	25·9	5·870	83·20	A.	593·58	·36944	·36941	+·00003	·36942	
,, ,,	14 15	3·4012	2·18	26·3	,,	5·572	83·20	15 18 37·6	48 16	25·8	5·727	83·20	A.	593·55	·36933	·36933	·00000	·36933	
FEB. 3	12 30	3·4009	2·24	25·8	+0·2	6·042	82·70	15 20 2·6	48 51	25·4	5·673	82·70	A.	593·92	·36908	·36910	—·00002	·36909	
,, ,,	13 46	3·4023	2·34	25·8	,,	5·015	82·70	15 20 8·6	48 55	25·3	5·202	82·70	A.	593·69	·36890	·36892	—·00002	·36891	
,, 10	12 32	3·4015	2·40	27·2	+0·2	5·725	82·70	15 18 30·6	48 21	26·9	5·732	82·70	A.	593·75	·36928	·36922	+·00006	·36925	
,, ,,	13 43	3·4019	2·35	27·1	,,	5·490	82·70	15 18 38·6	48 20	26·9	5·672	82·70	A.	593·69	·36921	·36919	+·00002	·36920	·369071
,, 17	12 19	3·4008	2·36	26·2	+0·2	5·885	82·60	15 19 29·6	48 25	25·8	5·677	82·60	A.	593·79	·36918	·36929	—·00011	·36923	
,, ,,	13 30	3·4012	2·36	25·9	,,	5·612	82·60	15 19 15·6	48 35	25·6	5·615	82·60	A.	593·68	·36918	·36917	+·00001	·36917	
,, 24	12 35	3·4037	2·26	27·2	+0·2	4·922	82·50	15 19 47·6	48 41	26·9	4·900	82·50	A.	593·70	·36880	·36885	—·00005	·36882	
,, ,,	13 51	3·4032	2·30	27·1	,,	4·792	82·50	15 19 40·6	48 39	26·8	4·868	82·50	A.	593·72	·36888	·36892	—·00004	·36890	
MARCH 3	12 14	3·4024	2·19	27·5	+0·3	5·447	82·82	15 19 31·6	48 29	27·2	5·282	82·82	A.	593·90	·36899	·36908	—·00009	·36903	
,, ,,	13 31	3·4041	2·19	27·6	,,	4·922	82·80	15 19 16·6	48 22	27·2	5·227	82·80	A.	593·54	·36888	·36897	—·00009	·36892	
,, 10	12 10	3·4007	2·10	28·1	+0·2	6·617	83·30	15 17 22·6	47 42	27·8	6·457	83·30	A.	593·75	·36961	·36962	—·00001	·36961	
,, ,,	13 24	3·4015	2·12	28·0	,,	6·175	83·30	15 18 2·6	47 55	27·7	6·370	83·30	A.	593·76	·36939	·36944	—·00005	·36941	·369164
,, 24	12 23	3·4029	2·22	27·8	+0·2	5·195	84·05	15 19 6·6	48 29	27·8	5·097	84·05	A.	593·87	·36899	·36899	·00000	·36899	
,, ,,	13 35	3·4038	2·20	27·8	,,	4·862	84·05	15 18 36·6	48 27	27·7	5·027	84·05	A.	593·61	·36901	·36894	+·00007	·36897	
,, 31	12 22	3·4032	2·26	29·6	+0·3	5·570	84·90	15 17 45·6	47 51	29·3	5·575	84·90	A.	593·81	·36925	·36927	—·00002	·36926	
,, ,,	13 32	3·4039	2·25	29·5	,,	5·450	84·90	15 18 2·6	48 1	29·1	5·578	84·90	A.	593·75	·36912	·36912	·00000	·36912	
APRIL 7	12 29	3·4070	2·26	30·2	+0·2	4·245	85·80	15 18 22·6	48 10	29·9	4·205	85·80	A.	593·53	·36871	·36871	·00000	·36871	
,, ,,	13 39	3·4062	2·26	30·4	,,	4·285	85·80	15 18 25·6	48 14	29·8	4·055	85·80	A.	593·70	·36881	·36879	+·00002	·36880	
,, 14	12 29	3·4022	2·18	28·8	+0·2	5·970	86·50	15 17 15·6	47 33	28·9	5·875	86·50	M. D. K.	593·65	·36943	·36949	—·00006	·36946	
,, ,,	13 49	3·4034	2·19	29·5	,,	5·655	86·50	15 17 2·6	47 31	29·0	5·790	86·50	M. D. K.	593·50	·36939	·36942	—·00003	·36940	
,, 22	12 23	3·4057	2·25	30·6	+0·2	4·605	87·30	15 17 25·6	47 51	29·9	4·755	87·30	M. D. K.	593·54	·36906	·36902	+·00004	·36904	·369180
,, ,,	13 56	3·4040	2·30	29·8	,,	4·660	87·30	15 17 41·6	47 55	29·7	4·773	87·30	M. D. K.	593·76	·36915	·36913	+·00002	·36914	
,, 28	12 18	3·4034	2·36	30·8	+0·2	5·880	87·70	15 16 12·6	47 9	30·4	5·740	87·70	M. D. K.	593·58	·36953	·36956	—·00003	·36954	
,, ,,	13 45	3·4047	2·47	30·7	,,	5·330	87·70	15 16 35·6	47 12	30·2	5·595	87·70	M. D. K.	593·36	·36931	·36939	—·00008	·36935	

* The monthly and annual means corrected for diurnal variation appear in table VIIIa.

1919. Date.	Civil time, mean.	Vibration magnet. Time of one vibration.	Effect of 90° torsion.	Temperature.	Rate of chronometer.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Angle of deflection. Distance. 23 cms.	30 cms.	Temperature.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Observer.	Calculated results in C. G. S. unit. Values of m.	Values of H. From deflection at distance. 23 cms. (H_{23}).	30 cms. (H_{30}).	Difference. $H_{23}-H_{30}$	Mean. $\frac{H_{23}+H_{30}}{2}$	*Observed monthly mean values of H.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	H. m.	S.	Sc div.	°	S.	Cms.	°	° ′ ″	° ′ ″	°	Cms.	°							
MAY 5	12 43	3·4066	2·50	31·3	+0·2	4·380	88·30	15 17 13	6 47 47	30·8	3·965	88·30	M. D. K.	593·51	0·36898	0·36892	+·00006	0·36895	
,, ,,	14 8	3·4071	2·47	31·1	,,	3·940	88·30	15 17 20	6 47 44	30·7	3·850	88·30	M. D. K.	593·36	·36888	·36887	+·00001	·36887	
,, 12	12 57	3·4043	2·44	31·8	+0·3	5·537	89·00	15 15 22	6 46 51	31·2	5·520	89·00	M. D. K.	593·42	·36960	·36960	·00000	·36960	
,, ,,	14 38	3·4041	2·45	31·1	,,	5·352	89·00	15 16 0	6 47 6	31·0	5·485	89·00	M. D. K.	593·51	·36945	·36947	—·00002	·36946	0·369172
,, 20	12 18	3·4066	2·25	31·8	+0·3	4·435	89·70	15 16 18	6 47 12	31·9	4·500	89·70	A.	593·42	·36912	·36916	—·00004	·36914	
,, ,,	13 30	3·4065	2·22	31·8	,,	4·480	89·70	15 16 39	6 47 34	31·6	4·525	89·70	A.	593·57	·36909	·36902	+·00007	·36905	
,, 26	13 0	3·4048	2·28	31·8	+0·1	5·075	90·45	15 16 55	6 47 27	31·7	4·680	90·45	A.	593·88	·36922	·36925	—·00003	·36923	
,, ,,	14 11	3·4061	2·27	31·7	,,	4·355	90·45	15 16 56	6 47 30	31·5	4·495	90·45	A.	593·62	·36907	·36909	—·00002	·36908	
JUNE 2	12 44	3·4047	2·29	31·6	0·0	5·192	91·20	15 16 38	6 47 7	31·3	5·097	91·20	A.	593·65	·36929	·36942	—·00013	·36935	
,, ,,	13 58	3·4054	2·31	31·3	,,	4·980	91·20	15 16 45	6 47 27	30·9	5·055	91·20	A.	593·55	·36920	·36921	—·00001	·36920	
,, 9	12 49	3·4010	2·26	28·0	+0·2	5·760	90·70	15 17 7	6 47 27	28·4	5·560	90·70	A.	593·61	·36956	·36963	—·00007	·36959	
,, ,,	14 9	3·4035	2·27	28·8	,,	4·807	90·70	15 17 52	6 48 0	28·4	5·260	90·70	A.	593·59	·36920	·36917	+·00003	·36918	
,, 16	14 46	3·4043	2·07	30·2	+0·2	5·282	89·50	15 17 1	6 47 35	29·8	5·097	89·50	A.	593·57	·36928	·36928	·00000	·36928	·369350
,, ,,	15 58	3·4044	2·09	30·0	,,	4·805	89·50	15 17 7	6 47 30	29·8	4·970	89·50	A.	593·51	·36923	·36928	—·00005	·36925	
,, 23	13 0	3·4050	2·41	30·5	+0·4	5·440	88·90	15 16 41	6 47 10	29·8	5·302	88·90	A.	593·25	·36928	·36939	—·00011	·36933	
,, ,,	14 10	3·4044	2·09	30·3	,,	5·022	88·90	15 16 55	6 47 20	29·8	5·147	88·90	A.	593·46	·36930	·36939	—·00009	·36934	
,, 30	12 35	3·4013	2·29	28·4	+0·1	5·775	88·45	15 16 51	6 47 45	27·8	5·697	88·45	A.	593·61	·36966	·36955	+·00011	·36960	
,, ,,	13 49	3·4017	2·23	27·6	,,	5·385	88·45	15 17 37	6 48 5	27·4	5·585	88·45	A.	593·61	·36944	·36933	+·00011	·36938	
JULY 7	12 22	3·4003	2·23	28·0	+1·3	6·315	87·00	15 17 34	6 47 27	27·9	6·142	87·00	A.	593·75	·36960	·36976	—·00016	·36968	
,, ,,	13 38	3·4017	2·27	28·2	,,	5·937	87·00	15 17 35	6 47 30	28·0	6·045	87·00	A.	593·55	·36944	·36959	—·00015	·36951	
,, 14	12 39	3·4033	2·23	29·8	+1·4	6·015	87·10	15 16 19	6 47 6	29·6	6·035	87·10	A.	593·38	·36951	·36960	—·00009	·36955	
,, ,,	13 53	3·4044	2·23	29·7	,,	5·575	87·10	15 16 22	6 47 27	29·7	5·950	87·10	A.	593·32	·36937	·36930	+·00007	·36933	·369529
,, 21	12 40	3·4016	2·21	28·8	+1·4	5·952	87·20	15 16 50	6 47 30	28·8	5·928	87·20	A.	593·68	·36959	·36959	·00000	·36959	
,, ,,	13 53	3·4025	2·18	28·9	,,	5·827	87·20	15 17 2	6 47 25	28·8	5·938	87·20	A.	593·53	·36946	·36954	—·00008	·36950	
,, 28	12 18	3·4008	2·21	27·8	+1·5	6·212	86·80	15 17 7	6 47 28	28·0	6·062	86·80	A.	593·59	·36961	·36968	—·00007	·36964	
,, ,,	13 33	3·4023	2·18	28·1	,,	5·817	86·80	15 17 35	6 47 37	27·9	5·980	86·80	A.	593·49	·36939	·36948	—·00009	·36943	
AUG. 4	11 58	3·4026	2·21	28·5	+1·6	5·932	86·20	15 17 2	6 47 27	27·8	6·050	86·20	A.	593·32	·36950	·36956	—·00006	·36953	
,, ,,	13 15	3·4026	2·19	28·4	,,	6·015	86·05	15 17 3	6 47 36	27·8	6·135	86·05	A.	593·38	·36949	·36949	·00000	·36949	
,, 18	11 58	3·4033	2·23	28·8	+1·5	5·210	85·90	15 17 22	6 47 31	28·8	5·072	85·90	A.	593·46	·36930	·36939	—·00009	·36934	·369320
,, ,,	13 8	3·4043	2·23	28·9	,,	5·107	85·90	15 18 1	6 47 57	28·8	5·010	85·90	A.	593·54	·36906	·36909	—·00003	·36907	
,, 25	11 57	3·4024	2·15	27·2	+1·4	5·480	85·30	15 18 10	6 48 4	26·7	5·465	85·30	A.	593·44	·36928	·36929	—·00001	·36928	
,, ,,	13 10	3·4029	2·17	27·3	,,	5·420	85·30	15 18 12	6 48 10	26·8	5·445	85·30	A.	593·43	·36922	·36920	+·00002	·36921	
SEPT. 1	11 59	3·4018	2·10	27·7	+1·5	5·865	85·15	15 16 58	6 47 41	27·4	5·790	85·15	A.	593·39	·36958	·36952	+·00006	·36955	
,, ,,	13 13	3·4029	2·12	27·8	,,	5·580	85·15	15 17 2	6 47 47	27·6	5·695	85·15	A.	593·28	·36943	·36934	+·00009	·36938	
,, 8	12 53	3·4049	2·15	28·8	+1·5	5·037	85·40	15 17 50	6 48 6	28·8	4·977	85·40	A.	593·49	·36905	·36897	+·00008	·36901	
,, ,,	14 6	3·4056	2·14	29·4	,,	4·860	85·40	15 18 5	6 48 12	28·8	4·925	85·40	A.	593·50	·36896	·36889	+·00007	·36892	
,, 15	11 44	3·4054	2·09	29·0	+1·3	4·615	86·20	15 17 50	6 47 42	28·8	4·702	86·20	A.	593·27	·36900	·36911	—·00011	·36905	
,, ,,	12 57	3·4050	2·11	28·7	,,	4·935	86·20	15 18 40	6 48 7	28·4	4·795	86·20	A.	593·53	·36889	·36897	—·00008	·36893	·369085
,, 22	14 0	3·4069	2·47	29·8	+1·2	4·320	87·25	15 18 16	6 47 57	29·8	4·202	87·25	A.	593·38	·36871	·36879	—·00008	·36875	
,, ,,	14 42	3·4069	2·47	29·9	,,	3·997	87·25	15 18 5	6 48 0	29·8	4·052	87·25	A.	593·38	·36876	·36877	—·00001	·36876	
,, 29	12 36	3·4039	2·63	29·4	+1·3	5·407	87·75	15 16 55	6 47 25	29·0	5·240	87·75	A.	593·29	·36932	·36937	—·00005	·36934	
,, ,,	13 47	3·4049	2·62	29·0	,,	4·785	87·75	15 17 23	6 47 32	28·8	5·027	87·75	A.	593·18	·36911	·36921	—·00010	·36916	

Oct.	7	12	38	3·4067	2·60	29·7	+1·5	4·480	87·70	15	17	17	6	47	57	29·1	4·295	87·70	A.	593·13	·36897	·36886	+ ·00011	·36891	
,,	,,	13	50	3·4059	2·60	29·7	,,	4·277	87·70	15	17	27	6	47	57	29·1	4·185	87·70	A.	593·29	·36902	·36894	+ ·00008	·36898	
,,	13	11	53	3·4033	2·63	30·4	+1·5	5·840	87·90	15	15	55	6	47	12	29·7	5·630	87·90	A.	593·40	·36961	·36956	+ ·00005	·36958	
,,	,,	13	8	3·4039	2·58	29·9	,,	5·087	87·90	15	16	31	6	47	15	29·8	5·422	87·90	A.	593·36	·36938	·36942	— ·00004	·36940	·369171
,,	20	12	0	3·4049	2·76	31·4	+1·3	5·082	88·35	15	15	53	6	46	56	30·9	4·990	88·35	A.	593·31	·36941	·36949	— ·00008	·36945	
,,	,,	13	10	3·4057	2·79	31·3	,,	4·725	88·35	15	16	10	6	47	5	31·2	4·890	88·35	A.	593·28	·36923	·36928	— ·00005	·36925	
,,	27	12	18	3·4051	2·79	30·4	+1·1	4·405	88·75	15	17	22	6	47	51	29·8	4·015	88·75	A.	593·55	·36911	·36905	+ ·00006	·36908	
,,	,,	13	29	3·4068	2·76	30·3	,,	4·005	88·75	15	18	9	6	48	15	29·8	3·922	88·75	A.	593·51	·36877	·36868	+ ·00009	·36872	
Nov.	3	12	47	3·4052	2·05	31·1	+0·8	5·500	88·80	15	15	30	6	46	40	30·7	5·322	88·80	A.	593·09	0·36949	0·36960	— ·00011	0·36954	
,,	,,	13	56	3·4056	2·04	30·9	,,	5·085	88·80	15	15	30	6	46	40	30·8	5·212	88·80	A.	593·02	·36942	·36953	— ·00011	·36947	
,,	10	12	47	3·4038	2·00	29·8	+0·8	5·580	88·70	15	16	32	6	47	7	29·8	5·475	88·70	A.	593·38	·36941	·36952	— ·00011	·36946	
,,	,,	13	59	3·4049	2·00	30·1	,,	5·192	88·70	15	15	55	6	47	7	30·0	5·390	88·70	A.	593·14	·36942	·36941	+ ·00001	·36941	0·369339
,,	17	12	11	3·4074	2·03	30·6	+0·7	4·475	88·67	15	16	27	6	47	15	29·8	4·507	88·67	A.	592·88	·36910	·36913	— ·00003	·36911	
,,	,,	13	27	3·4071	2·03	30·5	,,	4·372	88·67	15	16	17	6	47	15	29·8	4·475	88·67	A.	592·90	·36916	·36916	·00000	·36916	
,,	24	11	55	3·4029	2·03	28·7	+0·8	5·445	88·20	15	17	24	6	47	37	28·2	5·080	88·20	A.	593·47	·36939	·36944	— ·00005	·36941	
,,	,,	13	7	3·4049	2·03	28·6	,,	4·890	88·20	15	17	27	6	47	47	28·2	4·955	88·20	A.	593·18	·36916	·36914	+ ·00002	·36915	
Dec.	1	12	50	3·4043	2·13	29·8	+0·2	5·590	87·75	15	15	52	6	47	6	29·0	5·465	87·75	A.	593·05	·36954	·36953	+ ·00001	·36953	
,,	,,	14	5	3·4044	2·17	29·1	,,	5·307	87·75	15	16	21	6	47	20	28·9	5·402	87·75	A.	593·08	·36939	·36937	+ ·00002	·36938	
,,	8	12	40	3·4030	2·52	28·5	+0·2	5·660	87·10	15	17	15	6	47	37	27·5	5·465	87·10	A.	593·25	·36941	·36945	— ·00004	·36943	
,,	,,	13	52	3·4037	2·50	28·0	,,	5·340	87·10	15	16	50	6	47	35	27·7	5·420	87·10	A.	593·02	·36936	·36933	+ ·00003	·36934	·369352
,,	22	12	30	3·4040	2·50	28·4	+0·7	5·307	85·85	15	16	51	6	47	37	27·8	5·057	85·85	A.	593·06	·36935	·36930	+ ·00005	·36932	
,,	,,	13	53	3·4051	2·54	28·0	,,	4·655	85·85	15	17	30	6	47	55	27·7	4·962	85·85	A.	592·99	·36907	·36902	+ ·00005	·36904	
,,	29	13	1	3·4014	2·25	25·2	+0·6	5·607	84·75	15	17	19	6	47	51	24·9	5·522	84·75	A.	592·88	·36954	·36948	+ ·00006	·36951	
,,	,,	14	10	3·4014	2·24	25·4	,,	5·442	84·75	15	18	27	6	48	27	24·9	5·470	84·75	A.	593·31	·36933	·36922	+ ·00011	·36927	
																			Mean for the year=	593·48			—·000015		

The mean * observed value of the horizontal force for the year 1919 = ·0369225

* The monthly and annual means corrected for diurnal variation appear in table VIII *a*.

Absolute Magnetic Observations, Alibag—Table IIa.

OBSERVATIONS OF ABSOLUTE DECLINATION, 1919.

Taken with magnetometer no. 7 (T. Cooke and Sons).

1919. Date.	Alibag civil time.	Mean readings. Collimator magnet. Scale apparently. Erect.	Collimator magnet. Scale apparently. Inverted.	Horizontal circle with telescope pointed to. Scale of collimator magnet.	Horizontal circle with telescope pointed to. Kennery light house.	Torsion. Mean.	Torsion. Effect of 90°.	Observer.	Corresponding reading of declination magnetograms.	Absolute easterly declination corrected for torsion.	Monthly mean. Corresponding reading of declination magnetograms.	Monthly mean. *Observed absolute easterly declination.
1	2	3	4	5	6	7	8	9	10	11	12	13
	H. m.	Sc. div	Sc. div.	° ′ ″	′ ″	°	Sc. div.		Cms.	° ′ ″	Cms.	° ′ ″
JAN. 2	11 54	55·6	..	84 53 30	222 23 10	0	..	A.	3·090	0 23 45		
,, 9	11 32	55·6	..	84 55 35	222 23 15	0	..	A.	3·315	0 25 45		
,, 16	11 57	55·6	..	84 55 0	222 22 50	0	..	A.	3·240	0 25 35	3·248	0 25 25
,, 23	11 25	55·6	..	84 55 50	222 22 50	0	..	A.	3·330	0 26 5		
,, 30	12 2	55·6	..	84 55 5	222 22 35	0	..	A.	3·265	0 25 55		
FEB. 6	12 40	55·6	..	84 55 25	222 23 10	0	..	A.	3·315	0 25 40		
,, 13	12 7	55·6	..	84 54 50	222 23 10	0	..	A.	3·255	0 25 5	3·216	0 24 40
,, 20	12 2	55·6	..	84 52 50	222 23 25	0	..	A.	3·055	0 22 50		
,, 27	11 21	55·6	..	84 54 40	222 23 0	0	..	A.	3·240	0 25 5		
MARCH 6	11 46	55·6	..	84 54 50	222 23 10	0	..	A.	3·215	0 25 5		
,, 13	12 14	55·6	..	84 54 30	222 22 50	0	..	A.	3·260	0 25 5	3·266	0 25 17
,, 20	11 12	55·6	..	84 55 0	222 22 50	0	..	A.	3·300	0 25 35		
,, 27	10 57	55·6	..	84 54 50	222 22 59	0	..	A.	3·290	0 25 25		
APRIL 3	11 28	55·6	..	84 54 25	222 23 10	0	..	A.	3·300	0 24 40		
,, 10	11 28	55·6	..	84 54 10	222 22 55	0	..	A.	3·209	0 24 40		
,, 17	12 25	55·6	..	84 52 45	222 22 35	0	..	M. D. K.	3·080	0 23 35	3·180	0 24 19
,, 24	12 18	55·6	..	84 53 25	222 22 30	0	..	M. D. K.	3·140	0 24 20		
MAY 1	12 27	55·6	..	84 50 30	222 22 35	0	..	M. D. K.	2·819	0 21 20		
,, 8	12 22	55·6	..	84 53 0	222 22 50	0	..	M. D. K.	3·030	0 23 35		
,, 15	12 32	55·6	..	84 50 45	222 23 0	0	..	M. D. K.	2·810	0 21 10	2·922	0 22 20
,, 22	12 6	55·6	..	84 51 45	222 23 0	0	..	A.	2·930	0 22 10		
,, 29	12 36	55·6	..	84 52 50	222 22 50	0	..	A.	3·030	0 23 25		
JUNE 5	12 26	55·6	..	84 52 10	222 23 0	0	..	A.	2·930	0 22 35		
,, 12	11 52	55·6	..	84 52 0	222 22 55	0	..	A.	2·880	0 22 30	2·925	0 22 41
,, 19	12 17	55·6	..	84 53 0	222 23 10	0	..	A.	3·000	0 23 15		
,, 26	11 47	55·6	..	84 52 10	222 23 10	0	..	A.	2·890	0 22 25		
JULY 3	11 45	55·6	..	84 52 20	222 23 0	0	..	A.	2·920	0 22 45		
,, 10	11 28	55·6	..	84 52 45	222 22 15	0	..	A.	3·005	0 22 55		
,, 17	11 26	55·6	..	84 53 0	222 23 20	0	..	A.	3·000	0 23 5	3·009	0 23 15
,, 24	11 39	55·6	..	84 53 40	222 23 30	0	..	A.	3·060	0 23 35		
,, 31	11 6	55·6	..	84 53 50	222 23 20	0	..	A.	3·060	0 23 55		
AUG. 7	11 26	55·6	..	84 52 40	222 23 0	0	..	A.	2·970	0 23 5		
,, 14	11 11	55·6	..	84 52 35	222 23 40	0	..	A.	3·030	0 22 20	2·984	0 22 36
,, 21	11 5	55·6	..	84 52 40	222 23 35	0	..	A.	2·940	0 22 30		
,, 28	11 35	55·6	..	84 52 50	222 23 45	0	..	A.	2·995	0 22 30		
SEPT. 4	12 15	55·6	..	84 49 50	222 23 50	0	..	A.	2·670	0 19 25		
,, 11	11 25	55·6	..	84 51 35	222 23 55	0	..	A.	2·850	0 21 5	2·850	0 21 5
,, 18	11 29	55·6	..	84 52 20	222 23 55	0	..	A.	2·950	0 21 50		
,, 25	11 22	55·6	..	84 52 35	222 24 0	0	..	A.	2·930	0 22 0		
OCT. 2	11 49	55·6	..	84 51 55	222 24 0	0	..	A.	2·890	0 21 20		
,, 9	11 29	55·6	..	84 52 40	222 24 5	0	..	A.	2·970	0 22 0		
,, 16	11 32	55·6	..	84 53 35	222 24 10	0	..	A.	3·050	0 22 50	2·962	0 22 8
,, 23	12 14	55·6	..	84 53 25	222 24 5	0	..	A.	2·990	0 22 45		
,, 30	11 59	55·6	..	84 52 20	222 24 0	0	..	A.	2·910	0 21 45		
NOV. 6	11 32	55 6	..	84 53 40	222 23 50	0	..	A.	3·030	0 23 15		
,, 13	11 29	55·6	..	84 53 0	222 23 50	0	..	A.	2·975	0 22 35	2·959	0 22 25
,, 20	11 39	55 6	..	84 52 30	222 23 50	0	..	A.	2·950	0 22 5		
,, 27	12 43	55·6	..	84 51 55	222 23 35	0	..	A.	2·880	0 21 45		
DEC. 4	13 9	55·6	..	84 54 0	222 23 30	0	..	A.	3·100	0 23 55		
,, 11	11 45	55·6	..	84 51 50	222 23 30	0	..	A.	2·865	0 21 45	2·954	0 22 40
,, 18	12 43	55·6	..	84 52 20	222 23 15	0	..	A.	2·970	0 22 30		
,, 25	13 48	55·6	..	84 52 20	222 23 15	0	..	A.	2·940	0 22 30		

The mean * observed declination for the year 1919 = 0 23 14

* The monthly and annual means corrected for diurnal variation appear in table VIII.

Absolute Magnetic Observations, Alibag—Table IIb.

OBSERVATIONS OF ABSOLUTE DECLINATION, 1919.

Taken with magnetometer no. 3 (Cambridge Scientific Instrument Co.) and magnets belonging to magnetometer no. 137 (Dover Charlton).

1919. Date.	Alibag civil time.	Mean readings. Collimator magnet. Scale apparently. Erect.	Collimator magnet. Scale apparently. Inverted.	Horizontal circle with telescope pointed to. Scale of collimator magnet.	Horizontal circle with telescope pointed to. Kennery light house.	Torsion. Mean.	Torsion. Effect of 90°.	Observer.	Corresponding reading of declination magnetograms.	Absolute easterly declination corrected for torsion.	Monthly mean. Corresponding reading of declination magnetograms.	Monthly mean. *Observed absolute easterly declination.
1	2	3	4	5	6	7	8	9	10	11	12	13
	H. m.	Sc. div.	Sc. div.	° ′ ″	° ′ ″	°	Sc. div.		Cms.	° ′ ″	Cms.	° ′ ″
JAN. 2	11 31	44·00	44·70	275 52 50	53 22 20	0	..	A	3·082	0 23 16		
,, 9	12 3	44·00	44·55	275 55 0	53 22 30	0	..	A.	3·272	0 25 25		
,, 16	12 32	44·00	44·50	275 53 40	53 22 25	0	..	A.	3·240	0 24 12	3·236	0 24 28
,, 23	11 52	44·00	44·50	275 54 20	53 22 40	0	..	A.	3·310	0 24 37		
,, 30	12 36	44·00	44·50	275 54 30	53 22 35	0	..	A.	3·277	0 24 52		
FEB. 6	13 10	44·00	44·47	275 54 50	53 22 20	0	..	A.	3·385	0 25 9		
,, 13	12 31	44·00	44·50	275 54 0	53 22 45	0	..	A.	3·272	0 24 12		
,, 20	12 28	44·00	44·45	275 52 50	53 22 50	0	..	A.	3·097	0 23 0	3·245	0 24 2
,, 27	11 48	44·00	44·60	275 53 50	53 22 55	0	..	A.	3·227	0 23 46		
MARCH 6	12 12	44·00	44·40	275 53 10	53 23 0	0	..	A.	3·177	0 23 12		
,, 13	12 43	44·00	44·50	275 53 20	53 22 50	0	..	A.	3·207	0 23 27		
,, 20	11 37	44·00	44·60	275 53 30	53 22 20	0	..	A.	3·215	0 24 1	3·205	0 23 37
,, 27	11 22	44·00	44·50	275 53 30	53 22 40	0	..	A.	3·220	0 23 47		
APRIL 3	11 52	44 00	44·65	275 53 20	53 22 20	0	..	A.	3·220	0 23 49		
,, 10	11 2	44·00	44·40	275 53 40	53 22 30	0	..	A.	3·295	0 24 12		
,, 17	13 1	44·00	44·70	275 51 40	53 22 35	0	..	M. D. K.	3·052	0 21 51	3·167	0 23 0
,, 24	12 51	44·00	44·50	275 51 35	53 22 25	0	.	M. D. K.	3·100	0 22 7		
MAY 1	13 1	44·00	44·30	275 49 50	53 22 30	0	..	M. D. K.	2·855	0 20 28		
,, 8	11 58	44·00	44·30	275 51 40	53 22 30	0	..	M. D. K.	3·020	0 22 18		
,, 15	13 1	44·00	44·50	275 50 10	53 22 35	0	..	M. D. K.	2·865	0 20 32	2·966	0 21 51
,, 22	13 2	44·15	44·00	275 52 40	53 22 30	0	..	A.	3·065	0 23 43		
,, 29	13 3	44·00	44·20	275 51 50	53 22 50	0	..	A.	3·025	0 22 14		
JUNE 5	12 52	44·00	44·20	275 51 10	53 22 50	0	..	A.	2·930	0 21 34		
,, 12	12 22	44·00	44·30	275 51 20	53 22 35	0	..	A.	2·905	0 21 53	2·940	0 22 0
,, 19	12 48	44·00	44·60	275 52 40	53 22 40	0	..	A.	3·000	0 22 51		
,, 26	12 12	44 00	44·20	275 51 20	53 22 50	0	..	A.	2·925	0 21 44		
JULY 3	12 11	44·00	44·40	275 50 50	53 22 50	0	..	A.	2·885	0 21 2		
,, 10	11 54	44·00	44·20	275 51 20	53 22 30	0	..	A.	2·965	0 22 4		
,, 17	12 8	44·00	44·40	275 50 20	53 22 50	0	..	A.	2·920	0 20 32	2·965	0 21 42
,, 24	12 1	44·00	44·60	275 52 30	53 22 25	0	..	A.	3·041	0 22 56		
,, 31	11 33	44·00	44·20	275 51 10	53 22 30	0	..	A.	3·015	0 21 54		
AUG. 7	11 46	44·00	44·40	275 51 50	53 22 20	0	..	A.	2·960	0 22 32		
,, 14	11 36	44·00	44·20	275 52 10	53 22 40	0	..	A.	2·997	0 22 44		
,, 21	11 26	44·00	44·60	275 51 15	53 23 5	0	..	A.	2·890	0 21 1	2·945	0 22 5
,, 28	11 59	44·00	44·40	275 52 10	53 23 10	0	..	A.	2·935	0 22 2		
SEPT. 4	12 47	44·00	44·20	275 48 50	53 22 55	0	..	A.	2·687	0 19 9		
,, 11	11 45	43·95	44·65	275 51 0	53 22 50	0	..	A.	2·882	0 20 56		
,, 18	12 5	44·00	44·50	275 51 50	53 23 0	0	..	A.	2·962	0 21 47	2·849	0 20 32
,, 25	11 46	44·00	44·50	275 50 10	53 22 50	0	..	A.	2·867	0 20 17		
OCT. 2	12 14	44·00	44·40	275 50 0	53 23 0	0	..	A.	2·862	0 20 2		
,, 9	12 55	44·00	44·35	275 51 0	53 22 55	0	..	A.	2·942	0 21 11		
,, 16	11 54	44·00	44·50	275 53 0	53 23 25	0	..	A.	3·070	0 22 32	2·968	0 21 47
,, 23	11 54	44·00	44·40	275 52 40	53 22 55	0	..	A.	2·992	0 22 47		
,, 30	11 19	44·00	44·20	275 52 10	53 23 0	0	..	A.	2·975	0 22 24		
NOV. 6	12 0	44·00	44·50	275 52 10	53 22 35	0	..	A.	3·022	0 22 32		
,, 13	11 59	44·00	44 20	275 52 40	53 22 50	0	..	A.	2·995	0 23 4	2·969	0 21 57
,, 20	12 1	44·00	44·55	275 51 20	53 22 50	0	..	A.	2·955	0 21 25		
,, 27	13 8	44·00	44·20	275 50 30	53 23 0	0	..	A.	2·905	0 20 49		
DEC. 4	13 34	44·00	44·50	275 53 0	53 22 30	0	..	A.	3·102	0 23 27		
,, 11	12 7	44·00	44·20	275 51 20	53 23 0	0	..	A.	2·877	0 21 34		
,, 18	13 8	44·00	44·30	275 50 40	53 22 0	0	..	A.	2·900	0 21 48	2·951	0 22 16
,, 25	14 18	44·00	44·20	275 51 20	53 22 20	0	..	A.	2·927	0 22 14		

The mean * observed declination for the year 1919= 0 ° 22 ′ 26 ″

* The monthly and annual means corrected for diurnal variation appear in table VIIIa.

Absolute Magnetic Observations, Alibag—Table IIIa.

OBSERVATIONS OF INCLINATION, 1919.

Taken with inductor no. 41 by Schulze and galvanometer no. 200 by Plath.

1919. Date.	Alibag civil time. (0 to 24 hours). At commencement. H.	m.	At conclusion. H.	m.	Observers.	Face of circle. East. °	′	West. °	′	Mean inclination. °	′	*Monthly mean inclination. °	′
JAN. 3	7	46	8	0	A. and G. P. M.	24	46·21	24	45·96	24	46·08		
,, 4	13	28	13	42	A. and G. P. M.	24	48·14	24	48·19	24	48·16		
,, 6	11	9	11	22	G. P. M. and A.	24	45·85	24	45·48	24	45·66		
,, 8	11	7	11	20	G. P. M. and A.	24	45·05	24	45·02	24	45·03		
,, 10	8	13	8	27	G. P. M. and A.	24	47·24	24	47·15	24	47·19		
,, 11	13	33	13	47	G. P. M. and A.	24	44·31	24	44·00	24	44·15		
,, 13	11	47	12	5	M. D. K. and G. P. M.	24	44·83	24	44·90	24	44·86		
,, 15	11	26	11	46	M. D. K. and A.	24	46·00	24	45·18	24	45·59		
,, 17	8	32	8	50	M. D. K. and A.	24	47·73	24	47·37	24	47·55	24	45·83
,, 18	13	22	13	37	M. D. K. and A.	24	46·41	24	46·88	24	46·64		
,, 20	11	25	11	42	M. D. K. and A.	24	45·02	24	45·17	24	45·09		
,, 22	11	28	11	42	M. D. K. and A.	24	45·02	24	45·57	24	45·29		
,, 24	8	20	8	37	M. D. K. and A.	24	47·55	24	46·95	24	47·25		
,, 25	13	20	13	32	M. D. K. and A.	24	45·60	24	45·27	24	45·43		
,, 27	11	34	11	47	M. D. K. and A.	24	43·50	24	43·39	24	43·44		
,, 29	11	26	11	37	M. D. K. and A.	24	44·19	24	44·41	24	44·30		
,, 31	8	25	8	39	M. D. K. and A.	24	47·27	24	47·70	24	47·48		
FEB. 1	13	20	13	32	M. D. K. and A.	24	47·23	24	47·21	24	47·22		
,, 3	11	24	11	37	M. D. K. and A.	24	45·08	24	44·64	24	44·86		
,, 5	11	35	11	50	M. D. K. and A.	24	45·17	24	45·65	24	45·41		
,, 7	8	5	8	17	M. D. K. and A.	24	46·18	24	46·55	24	46·36		
,, 8	13	9	13	23	G. P. M. and A.	24	44·68	24	44·41	24	44·54		
,, 10	11	32	11	42	A. and G. P. M.	24	44·55	24	44·65	24	44·60		
,, 12	11	38	11	52	A. and G. P. M.	24	44·42	24	44·23	24	44·32		
,, 14	8	5	8	18	A. and G. P. M.	24	46·88	24	46·67	24	46·77	24	45·95
,, 15	13	21	13	33	A. and G. P. M.	24	47·09	24	47·10	24	47·09		
,, 17	11	13	11	25	A. and G. P. M.	24	45·30	24	45·33	24	45·31		
,, 19	11	12	11	22	A. and G. P. M.	24	43·98	24	44·47	24	44·22		
,, 21	7	50	8	2	A. and G. P. M.	24	46·75	24	46·64	24	46·69		
,, 22	13	8	13	22	A. and G. P. M.	24	47·50	24	47·37	24	47·43		
,, 24	11	32	11	44	A. and G. P. M.	24	47·17	24	47·97	24	47·57		
,, 26	11	24	11	37	A. and G. P. M.	24	45·82	24	46·28	24	46·05		
,, 28	7	28	7	39	A. and G. P. M.	24	46·77	24	46·72	24	46·74		
MARCH 1	13	31	13	46	A. and G. P. M.	24	46·68	24	46·78	24	46·73		
,, 3	11	3	11	16	G. P. M. and A.	24	45·58	24	45·71	24	45·64		
,, 5	11	18	11	30	G. P. M. and A.	24	45·14	24	45·53	24	45·33		
,, 7	7	44	7	56	G. P. M. and A.	24	47·62	24	48·00	24	47·81		
,, 8	14	11	14	25	G. P. M. and A.	24	47·54	24	48·30	24	47·92		
,, 10	11	13	11	24	A. and G. P. M.	24	43·98	24	44·00	24	43·99		
,, 12	11	16	11	29	G. P. M. and A.	24	45·58	24	46·33	24	45·95		
,, 14	7	51	8	5	G. P. M. and A.	24	47·38	24	47·63	24	47·50	24	46·68
,, 15	13	23	13	32	G. P. M. and A.	24	46·84	24	47·31	24	47·07		
,, 19	11	5	11	17	G. P. M. and A.	24	44·98	24	45·32	24	45·15		
,, 21	7	54	8	10	A. and G. P. M.	24	49·34	24	50·01	24	49·67		
,, 22	13	32	13	44	A. and G. P. M.	24	49·24	24	49·08	24	49·16		
,, 24	11	27	11	40	G. P. M. and A.	24	46·08	24	46·62	24	46·35		
,, 26	11	3	11	16	G. P. M. and A.	24	44·53	24	44·66	24	44·59		
,, 28	7	20	7	32	G. P. M. and A.	24	49·19	24	49·20	24	49·19		
,, 29	13	22	13	33	G. P. M. and A.	24	46·34	24	46·75	24	46·54		
,, 31	11	27	11	40	G. P. M. and A.	24	44·88	24	45·06	24	44·97		
APRIL 2	11	25	11	37	G. P. M. and A.	24	43·23	24	43·85	24	43·54		
,, 4	7	31	7	43	A. and G. P. M.	24	46·72	24	46·92	24	46·82		
,, 5	13	14	13	26	G. P. M. and A.	24	45·88	24	46·77	24	46·32		
,, 7	11	40	11	52	G. P. M. and A.	24	45·93	24	46·08	24	46·00		
,, 11	7	35	7	47	A. and G. P. M.	24	48·90	24	49·33	24	49·11		
,, 12	13	13	13	29	A. and G. P. M.	24	45·80	24	46·04	24	45·97		
,, 14	11	14	11	27	M.D.K. & G.P.M.	24	44·84	24	44·62	24	44·73		
,, 16	11	17	11	32	M.D.K. & G.P.M.	24	43·99	24	44·64	24	44·31		
,, 18	8	1	8	13	M.D.K. & G.P.M.	24	47·23	24	47·58	24	47·40	24	45·99
,, 19	13	20	13	32	M.D.K. & G.P.M.	24	47·52	24	47·64	24	47·58		
,, 21	11	22	11	35	M.D.K. & G.P.M.	24	46·65	24	46·45	24	46·55		
,, 23	11	18	11	30	M.D.K. & G.P.M.	24	44·52	24	44·65	24	44·58		
,, 25	7	25	7	36	M.D.K. & G.P.M.	24	47·71	24	47·59	24	47·65		
,, 26	13	18	13	29	M.D.K. & G.P.M.	24	46·39	24	46·69	24	46·54		
,, 28	11	11	11	22	M.D.K. & G.P.M.	24	43·77	24	43·80	24	43·78		
,, 30	11	14	11	25	M.D.K. & G.P.M.	24	44·89	24	44·92	24	44·90		

* The monthly and annual means corrected for diurnal variation appear in table VIII.

1919. Date.		Alibag civil time. (0 to 24 hours). At commencement. H. m.	At conclusion. H. m.	Observers.	Face of circle. East. ° ′	West. ° ′	Mean inclination. ° ′	*Monthly mean inclination. ° ′
MAY	2	7 40	7 52	M.D.K. & G.P.M.	24 47·26	24 47·96	24 47·61	
,,	3	13 18	13 30	M.D.K. & G.P.M.	24 51·04	24 50·82	24 50·93	
,,	5	11 30	11 42	M.D.K. & G.P.M.	24 46·16	24 46·13	24 46·14	
,,	7	11 24	11 35	M.D.K. & G.P.M.	24 45·18	24 44·60	24 44·89	
,,	9	7 39	7 51	M.D.K. & G.P.M.	24 48·31	24 48·65	24 48·48	
,,	10	13 16	13 28	M.D.K. & G.P.M.	24 47·28	24 47·62	24 47·45	
,,	12	11 18	11 30	M.D.K. & G.P.M.	24 46·36	24 46·78	24 46·57	
,,	14	11 14	11 25	M.D.K. & G.P.M.	24 46·46	24 46·29	24 46·37	
,,	16	7 41	7 53	G. P. M. and A.	24 49·50	24 49·80	24 49·65	24 47·66
,,	17	13 15	13 29	G. P. M. and A.	24 45·94	24 46·79	24 46·36	
,,	19	13 17	13 28	G. P. M. and A.	24 46·97	24 47·27	24 47·12	
,,	21	14 14	14 26	A. and G. P. M.	24 46·73	24 46·52	24 46·62	
,,	23	8 12	8 27	A. and G. P. M.	24 49·36	24 49·42	24 49·39	
,,	24	13 20	13 32	A. and G. P. M.	24 49·38	24 49·75	24 49·56	
,,	26	11 32	11 47	G. P. M. and A.	24 47·98	24 47·45	24 47·71	
,,	28	11 36	11 50	A. and G. P. M.	24 46·54	24 47·17	24 46·85	
,,	30	7 54	8 7	A. and G. P. M.	24 49·17	24 48·77	24 48·97	
,,	31	13 18	13 30	A. and G. P. M.	24 47·13	24 47·24	24 47·18	
JUNE	2	11 24	11 36	G. P. M. and A.	24 45·72	24 46·46	24 46·09	
,,	4	11 16	11 28	G. P. M. and A.	24 43·45	24 43·63	24 43·54	
,,	6	7 43	7 57	G. P. M. and A.	24 47·91	24 48·15	24 48·03	
,,	7	13 22	13 35	A. and G. P. M.	24 45·93	24 46·30	24 46·11	
,,	9	13 10	13 24	A. and G. P. M.	24 46·43	24 47·24	24 46·83	
,,	11	11 18	11 31	G. P. M. and A.	24 44·64	24 45·05	24 44·84	
,,	13	7 50	8 2	G. P. M. and A.	24 50·13	24 50·39	24 50·26	
,,	14	14 9	14 22	A. and G. P. M.	24 46.74	24 47·03	24 46·88	
,,	16	11 20	11 32	G. P. M. and A.	24 45·33	24 45·45	24 45·39	24 46·45
,,	18	11 20	11 31	G. P. M. and A.	24 46·37	24 47·04	24 46·70	
,,	20	8 25	8 39	G. P. M. and A.	24 47·01	24 46·40	24 46·70	
,,	21	13 15	13 32	G. P. M. and A.	24 45·46	24 45·38	24 45·42	
,,	23	11 33	11 47	G. P. M. and A.	24 45·53	24 45·98	24 45·75	
,,	25	11 21	11 36	G. P. M. and A.	24 44·60	24 45·21	24 44·90	
,,	27	7 45	7 57	G. P. M. and A.	24 48·79	24 48·12	24 48·45	
,,	28	13 10	13 23	G. P. M. and A.	24 47·18	24 47·18	24 47·18	
,,	30	11 15	11 29	G. P. M. and A.	24 46·45	24 46·76	24 46·60	
JULY	2	11 30	11 47	G. P. M. and A.	24 46·76	24 47·14	24 46·95	
,,	4	8 30	8 43	G. P. M. and A.	24 47·76	24 48·28	24 48·02	
,,	5	14 10	14 24	G. P. M. and A.	24 48·17	24 48·00	24 48·08	
,,	7	11 21	11 34	G. P. M. and A.	24 45·17	24 45·51	24 45·34	
,,	9	11 22	11 36	G. P. M. and A.	24 46·91	24 46·90	24 46·90	
,,	11	7 45	7 59	G. P. M. and A.	24 48·86	24 49·10	24 48·98	
,,	12	13 19	13 32	G. P. M. and A.	24 47·73	24 47·69	24 47·71	
,,	14	11 27	11 39	A. and G. P. M.	24 46·82	24 46·21	24 46·51	24 47·54
,,	16	11 25	11 39	G. P. M. and A.	24 45·77	24 46·27	24 46·02	
,,	18	7 44	8 1	G. P. M. and A.	24 49·90	24 50·13	24 50·01	
,,	21	11 35	11 49	A. and G. P. M.	24 46·06	24 45·28	24 45·67	
,,	23	11 15	11 29	A. and G. P. M.	24 48·51	24 49·07	24 48·79	
,,	25	8 10	8 24	G. P. M. and A.	24 49·02	24 49·41	24 49·21	
,,	26	13 13	13 25	G. P. M. and A.	24 48·76	24 48·94	24 48·85	
,,	28	11 22	11 32	G. P. M. and A.	24 46·41	24 46·27	24 46·34	
,,	30	11 6	11 20	G. P. M. and A.	24 47·18	24 47·35	24 47·26	
AUG.	1	7 40	7 56	G. P. M. and A.	24 50·22	24 50·85	24 50·53	
,,	2	11 8	11 20	G. P. M. and A.	24 46·92	24 46·47	24 46·69	
,,	4	11 0	11 12	A. and G. P. M.	24 47·27	24 46·75	24 47·01	
,,	6	10 45	10 58	A. and G. P. M.	24 46·64	24 46·78	24 46·71	
,,	8	7 55	8 8	G. P. M. and A.	24 48·88	24 49·17	24 49·02	
,,	9	14 6	14 19	G. P. M. and A.	24 47·87	24 47·98	24 47·92	
,,	13	14 8	14 21	G. P. M. and A.	24 50·67	24 51·38	24 51·02	
,,	15	7 50	8 5	G. P. M. and A.	24 51·89	24 51·81	24 51·85	
,,	16	14 12	14 24	G. P. M. and A.	24 49·84	24 49·75	24 49·79	24 48·66
,,	18	11 8	11 22	A. and G. P. M.	24 48·17	24 48·05	24 48·11	
,,	20	11 15	11 27	G. P. M. and A.	24 48·51	24 48·87	24 48·69	
,,	22	8 19	8 31	A. and G. P. M.	24 48·76	24 49·05	24 48·90	
,,	23	13 20	13 34	A. and G. P. M.	24 47·78	24 48·23	24 48·00	
,,	25	11 0	11 12	G. P. M. and A.	24 47·39	24 47·41	24 47·40	
,,	27	11 16	11 27	G. P. M. and A.	42 47·66	24 47·63	24 47·64	
,,	29	7 52	8 6	G. P. M. and A.	24 50·98	24 50·60	24 50·79	
,,	30	13 0	13 21	G. P. M. and A.	24 47·32	24 46·85	24 47·08	

* The monthly and annual means corrected for diurnal variation appear in table VIII.

1919. Date.		Alibag civil time. (0 to 24 hours.) At commencement. H.	m.	At conclusion. H.	m.	Observers.	Face of circle. East. °	′	West. °	′	Mean inclination. °	′	*Monthly mean inclination. °	′
SEPT.	1	10	50	11	4	G. P. M. and A.	24	47·01	24	47·31	24	47·16		
,,	3	11	10	11	26	G. P. M. and A.	24	48·12	24	47·45	24	47·78		
,,	5	8	12	8	27	A. and G. P. M.	24	49·91	24	49·84	24	49·87		
,,	6	14	6	14	18	G. P. M. and A.	24	52·31	24	52·43	24	52·37		
,,	8	11	18	11	34	G. P. M. and A.	24	48·96	24	49·01	24	48·98		
,,	10	11	20	11	34	G. P. M. and A.	24	46·99	24	47·56	24	47·27		
,,	12	8	10	8	24	G. P. M. and A.	24	48·92	24	49·00	24	48·96		
,,	13	13	16	13	28	G. P. M. and A.	24	48·02	24	47·62	24	47·82		
,,	15	10	50	11	6	A. and G. P. M.	24	47·22	24	46·63	24	46·92	24	48·73
,,	17	11	38	11	53	A. and G. P. M.	24	48·44	24	48·11	24	48·27		
,,	19	7	45	7	59	G. P. M. and A.	24	49·53	24	50·18	24	49·85		
,,	20	14	8	14	20	G. P. M. and A.	24	52·48	24	53·19	24	52·83		
,,	22	10	40	11	2	G. P. M. and A.	24	46·93	24	46·65	24	46·79		
,,	24	11	28	11	42	G. P. M. and A.	24	46·12	24	46·12	24	46·12		
,,	26	7	55	8	8	G. P. M. and A.	24	50·16	24	49·67	24	49·91		
,,	27	14	10	14	22	G. P. M. and A.	24	50·21	24	50·25	24	50·23		
,,	29	11	20	11	33	A. and G. P. M.	24	47·43	24	47·00	24	47·21		
OCT.	1	11	20	11	35	A. and G. P. M.	24	47·50	24	47·11	24	47·30		
,,	3	8	5	8	19	G. P. M. and A.	24	52·05	24	52·11	24	52·08		
,,	6	14	8	14	21	G. P. M. and A.	24	51·52	24	51·47	24	51·49		
,,	8	11	30	11	44	A. and G. P. M.	24	48·58	24	48·80	24	48·69		
,,	10	7	45	7	59	G. P. M. and A.	24	51·12	24	51·50	24	51·31		
,,	11	14	6	14	19	G. P. M. and A.	24	50·27	24	49·80	24	50·03		
,,	13	10	45	11	7	G. P. M. and A.	24	48·72	24	48·13	24	48·42		
,,	15	10	40	10	55	A. and G. P. M.	24	47·69	24	47·60	24	47·64	24	50·17
,,	17	7	32	7	46	G. P. M. and A.	24	51·15	24	52·11	24	51·63		
,,	18	14	11	14	26	G. P. M. and A.	24	52·58	24	52·92	24	52·75		
,,	20	11	10	11	25	A. and G. P. M.	24	48·62	24	49·25	24	48·93		
,,	24	7	50	8	4	G. P. M. and A.	24	50·13	24	50·96	24	50·54		
,,	25	14	11	14	25	A. and G. P. M.	24	51·16	24	51·49	24	51·32		
,,	27	11	20	11	34	G. P. M. and A.	24	48·37	24	48·35	24	48·36		
,,	29	10	50	11	6	A. and G. P. M.	24	50·30	24	50·25	24	50·27		
,,	31	7	15	7	27	G. P. M. and A.	24	52·35	24	51·74	24	52·04		
NOV.	1	14	8	14	22	A. and G. P. M.	24	51·40	24	51·21	24	51·30		
,,	3	11	40	12	2	A. and G. P. M.	24	50·10	24	49·89	24	49·99		
,,	5	11	50	12	5	A. and G. P. M.	24	51·61	24	51·57	24	51·59		
,,	7	8	18	8	30	A. and G. P. M.	24	50·40	24	51·36	24	50·88		
,,	8	14	12	14	25	A. and G. P. M.	24	47·94	24	47·91	24	47·92		
,,	10	11	26	11	40	A. and G. P. M.	24	49·97	24	50·06	24	50·01		
,,	12	11	10	11	25	A. and G. P. M.	24	49·77	24	49·85	24	49·81		
,,	14	7	52	8	8	A. and G. P. M.	24	49·75	24	50·35	24	50·05		
,,	15	13	20	13	34	A. and G. P. M.	24	50·26	24	50·12	24	50·19	24	50·42
,,	17	11	15	11	30	A. and G. P. M.	24	50·41	24	49·78	24	50·09		
,,	19	11	5	11	17	A. and G. P. M.	24	50·55	24	50·55	24	50·55		
,,	21	7	50	8	7	G. P. M. and A.	24	49·24	24	50·01	24	49·62		
,,	22	14	27	14	44	A. and G. P. M.	24	51·53	24	52·23	24	51·88		
,,	24	10	55	11	10	G. P. M. and A.	24	51·03	24	50·59	24	50·81		
,,	26	11	5	11	21	G. P. M. and A.	24	51·91	24	51·41	24	51·66		
,,	28	8	20	8	36	G. P. M. and A.	24	50·42	24	51·16	24	50·79		
,,	29	13	15	13	29	G. P. M. and A.	24	50·12	24	49·94	24	50·03		
DEC.	1	11	18	11	33	A. and G. P. M.	24	50·32	24	49·61	24	49·96		
,,	3	11	0	11	16	G. P. M. and A.	24	49·93	24	50·27	24	50·10		
,,	5	7	58	8	13	A. and G. P. M.	24	51·95	24	51·52	24	51·73		
,,	6	14	6	14	22	A. and G. P. M.	24	51·54	24	51·51	24	51·52		
,,	8	10	55	11	9	A. and G. P. M.	24	51·61	24	51·48	24	51·54		
,,	10	11	11	11	23	A. and G. P. M.	24	52·02	24	51·71	24	51·86		
,,	12	7	50	8	5	A. and G. P. M.	24	52·00	24	51·90	24	51·95		
,,	13	14	14	14	27	A. and G. P. M.	24	51·10	24	51·27	24	51·18		
,,	17	11	20	11	33	A. and G. P. M.	24	52·00	24	52·56	24	52·28	24	51·60
,,	19	8	15	8	27	G. P. M. and A.	24	52·89	24	53·75	24	53·32		
,,	20	14	6	14	22	A. and G. P. M.	24	51·45	24	51·57	24	51·51		
,,	22	11	30	11	47	A. and G. P. M.	24	51·30	24	50·58	24	50·94		
,,	24	11	1	11	14	A. and G. P. M.	24	51·07	24	50·88	24	50·97		
,,	26	8	5	8	19	A. and G. P. M.	24	53·03	24	53·17	24	53·10		
,,	27	14	40	15	2	G. P. M. and A.	24	51·22	24	51·10	24	51·16		
,,	29	11	26	11	55	A. and G. P. M.	24	51·84	24	51·97	24	51·90		
,,	31	11	35	11	52	G. P. M. and A.	24	52·14	24	52·37	24	52·25		

The mean *observed inclination for the year 1919 = 24° 47′·97

*The monthly and annual means corrected for diurnal variation appear in table VIII

Absolute Magnetic Observations, Alibag—Table IIIb.

OBSERVATIONS OF INCLINATION, 1919.

Taken with inductor no. 108 and galvanometer no. 108 A by Otto Toepfer and Sons.

1919. Date.	Alibag civil time. (0 to 24 hours.) At commencement. H.	m.	At conclusion. H.	m.	Observers.	Face of circle. East. °	′	West. °	′	Mean inclination. °	′	* Monthly mean inclination. °	′
JAN. 3	7	14	7	26	A. and G. P. M.	24	47·55	24	47·62	24	47·58		
,, 3	13	14	13	27	A. and G. P. M.	24	46·01	24	45·36	24	45·68		
,, 7	13	2	13	17	A. and G. P. M.	24	45·65	24	44·70	24	45·17		
,, 10	7	38	7	54	A. and G. P. M.	24	47·85	24	47·64	24	47·74		
,, 10	13	6	13	23	A. and G. P. M.	24	45·66	24	45·88	24	45·77		
,, 17	7	45	8	7	M. D. K. and A.	24	47·17	24	46·94	24	47·05		
,, 17	13	15	13	37	M. D. K. and A.	24	47·58	24	47·67	24	47·62	24	46·66
,, 21	11	37	11	55	M. D. K. and A.	24	44·92	24	44·70	24	44·81		
,, 24	7	33	7	47	M. D. K. and A.	24	48·74	24	48·22	24	48·48		
,, 24	11	25	11	39	M. D. K. and A.	24	46·22	24	45·58	24	45·90		
,, 28	11	54	12	9	M. D. K. and A.	24	46·22	24	46·18	24	46·20		
,, 31	7	50	8	4	G. P. M. and A.	24	47·54	24	47·70	24	47·62		
,, 31	13	15	13	30	G. P. M. and A.	24	47·01	24	46·91	24	46·96		
FEB. 4	13	20	13	34	G. P. M. and A.	24	46·39	24	45·92	24	46·15		
,, 7	7	40	7	52	G. P. M. and A.	24	47·19	24	46·68	24	46·93		
,, 7	13	16	13	28	G. P. M. and A.	24	46·12	24	46·06	24	46·09		
,, 11	11	38	12	0	A. and G. P. M.	24	45·20	24	44·93	24	45·06		
,, 14	7	40	7	52	A. and G. P. M.	24	47·46	24	47·01	24	47·23		
,, 14	13	45	14	1	A. and G. P. M.	24	47·69	24	47·50	24	47·59	24	46·33
,, 18	13	2	13	15	G. P. M. and A.	24	44·61	24	44·87	24	44·74		
,, 21	7	16	7	32	G. P. M. and A.	24	46·58	24	46·14	24	46·36		
,, 21	13	5	13	18	G. P. M. and A.	24	46·07	24	45·89	24	45·98		
,, 25	13	28	13	39	A. and G. P. M.	24	46·68	24	46·59	24	46·63		
,, 28	7	7	7	18	A. and G. P. M.	24	47·21	24	46·61	24	46·91		
MARCH 4	13	11	13	22	G. P. M. and A.	24	46·15	24	46·10	24	46·12		
,, 7	7	9	7	27	G. P. M. and A.	24	48·16	24	47·60	24	47·88		
,, 7	13	7	13	21	G. P. M. and A.	24	46·37	24	46·07	24	46·22		
,, 11	13	4	13	16	G. P. M. and A.	24	45·62	24	45·64	24	45·63		
,, 14	7	18	7	31	G. P. M. and A.	24	47·66	24	47·37	24	47·51		
,, 14	13	15	13	28	G. P. M. and A.	24	45·46	24	45·99	24	45·72	24	47·21
,, 18	13	10	13	22	A. and G. P. M.	24	45·72	24	45·97	24	45·84		
,, 21	7	13	7	35	A. and G. P. M.	24	49·07	24	48·52	24	48·79		
,, 21	13	17	13	28	A. and G. P. M.	24	48·39	24	48·27	24	48·33		
,, 25	14	10	14	25	G. P. M. and A.	24	48·30	24	48·19	24	48·24		
,, 28	6	53	7	6	G. P. M. and A.	24	48·54	24	48·30	24	48·42		
,, 28	13	2	13	15	G. P. M. and A.	24	47·96	24	47·73	24	47·84		
APRIL 1	14	12	14	26	G. P. M. and A.	24	45·55	24	45·94	24	45·74		
,, 4	7	5	7	18	A. and G. P. M.	24	45·90	24	46·13	24	46·01		
,, 4	13	18	13	31	G. P. M. and A.	24	45·69	24	45·73	24	45·71		
,, 8	13	15	13	29	G. P. M. and A.	24	46·68	24	46·79	24	46·73		
,, 11	6	55	7	12	M. D. K. and A.	24	48·55	24	49·06	24	48·80		
,, 11	13	4	13	17	G. P. M. and M. D. K.	24	46·02	24	46·29	24	46·15		
,, 15	13	13	13	28	M. D. K. and G. P. M.	24	45·28	24	45·87	24	45·57	24	46·51
,, 18	7	35	7	48	M. D. K. and G. P. M.	24	47·99	24	47·93	24	47·96		
,, 18	13	19	13	31	M. D. K. and G. P. M.	24	47·35	24	47·25	24	47·30		
,, 22	11	9	11	21	M. D. K. and G. P. M.	24	44·69	24	45·49	24	45·09		
,, 25	7	1	7	13	M. D. K. and G. P. M.	24	48·28	24	48·34	24	48·31		
,, 25	13	18	13	30	M. D. K. and G. P. M.	24	45·80	24	45·34	24	45·57		
,, 29	13	10	13	22	M. D. K. and G. P. M.	24	45·88	24	45·44	24	45·66		
MAY 2	7	18	7	30	M. D. K. and G. P. M.	24	47·02	24	47·12	24	47·07		
,, 2	13	20	13	31	M. D. K. and G. P. M.	24	47·93	24	47·90	24	47·91		
,, 6	13	24	13	35	M. D. K. and G. P. M.	24	47·05	24	46·97	24	47·01		
,, 9	7	20	7	32	M. D. K. and G. P. M.	24	48·50	24	48·87	24	48·68		
,, 9	13	19	13	33	M. D. K. and G. P. M.	24	46·47	24	46·58	24	46·52		
,, 13	13	19	13	34	M. D. K. and G. P. M.	24	48·42	24	48·17	24	48·29		
,, 16	7	12	7	25	G. P. M. and A.	24	49·64	24	49·03	24	49·33	24	48·32
,, 16	14	6	14	18	G. P. M. and A.	24	47·45	24	47·60	24	47·52		
,, 20	11	15	11	27	G. P. M. and A.	24	47·54	24	47·89	24	47·71		
,, 23	7	38	8	2	A. and G. P. M.	24	50·25	24	50·15	24	50·20		
,, 23	14	12	14	25	G. P. M. and A.	24	49·21	24	48·67	24	48·94		
,, 27	14	15	14	27	G. P. M. and A.	24	50·25	24	49·64	24	49·94		
,, 30	7	6	7	25	A. and G. P. M.	24	50·09	24	49·74	24	49·91		
,, 30	13	17	13	29	A. and G. P. M.	24	47·26	24	47·66	24	47·46		

* The monthly and annual means corrected for diurnal variation appear in table VIIIa.

1919. Date.		Alibag civil time. (0 to 24 hours.) At commencement. H.	m.	At conclusion. H.	m.	Observers.	Face of circle. East. °	′	West. °	′	Mean inclination. °	′	* Monthly mean inclination. °	′
JUNE	6	7	20	7	34	G. P. M. and A.	24	50·29	24	49·61	24	49·95		
,,	6	13	12	13	24	G. P. M. and A.	24	47·32	24	47·06	24	47·19		
,,	10	13	17	13	31	G. P. M. and A.	24	49·11	24	48·87	24	48·99		
,,	13	7	25	7	39	G. P. M. and A.	24	51·42	24	51·07	24	51·24		
,,	13	14	11	14	24	G. P. M. and A.	24	50·39	24	50·60	24	50·49		
,,	17	13	20	13	34	G. P. M. and A.	24	46·96	24	46·81	24	46·88	24	48·80
,,	20	7	58	8	12	A. and G. P. M.	24	48·72	24	49·09	24	48·90		
,,	20	13	26	13	40	G. P. M. and A.	24	47·05	24	47·23	24	47·14		
,,	24	16	10	16	23	G. P. M. and A.	24	51·08	24	51·06	24	51·07		
,,	27	7	20	7	32	G. P. M. and A.	24	48·47	24	48·58	24	48·52		
,,	27	13	11	13	24	G. P. M. and A.	24	46·53	24	46·33	24	46·43		
JULY	1	13	17	13	33	G. P. M. and A.	24	49·02	24	49·59	24	49·30		
,,	4	7	15	7	29	G. P. M. and A.	24	50·08	24	49·64	24	49·86		
,,	4	14	6	14	19	G. P. M. and A.	24	47·58	24	48·12	24	47·85		
,,	8	13	20	13	34	G. P. M. and A.	24	46·82	24	46·64	24	46·73		
,,	11	7	21	7	36	A. and G. P. M.	24	48·35	24	48·11	24	48·23		
,,	11	13	14	13	28	G. P. M. and A.	24	46·38	24	46·36	24	46·37		
,,	15	13	11	13	24	G. P. M. and A.	24	46·37	24	46·64	24	46·50	24	48·10
,,	18	7	12	7	26	G. P. M. and A.	24	50·23	24	50·07	24	50·15		
,,	18	14	6	14	19	A. and G. P. M.	24	48·14	24	48·01	24	48·07		
,,	22	14	7	14	20	G. P. M. and A.	24	45·78	24	46·12	24	45·95		
,,	25	7	40	7	52	G. P. M. and A.	24	49·90	24	49·54	24	49·72		
,,	25	15	10	15	22	G. P. M. and A.	24	50·69	24	50·72	24	50·70		
,,	29	13	3	13	17	G. P. M. and A.	24	45·68	24	46·01	24	45·84		
AUG.	1	7	15	7	29	G. P. M. and A.	24	49·37	24	49·84	24	49·60		
,,	1	13	9	13	27	G. P. M. and A.	24	46·62	24	47·12	24	46·87		
,,	5	13	12	13	24	G. P. M. and A.	24	47·74	24	47·70	24	47·72		
,,	8	7	28	7	40	G. P. M. and A.	24	49·56	24	49·72	24	49·64		
,,	8	14	3	14	16	G. P. M. and A.	24	48·85	24	49·08	24	48·96		
,,	12	13	7	13	21	A. and G. P. M.	24	48·52	24	49·29	24	48·90	24	49·35
,,	15	7	15	7	29	A. and G. P. M.	24	50·03	24	49·38	24	49·70		
,,	15	14	26	14	39	A. and G. P. M.	24	50·77	24	50·90	24	50·83		
,,	22	7	58	8	7	A. and G. P. M.	24	49·09	24	49·45	24	49·27		
,,	22	14	12	14	25	G. P. M. and A.	24	48·76	24	49·25	24	49·00		
,,	26	14	8	14	22	G. P. M. and A.	24	49·41	24	49·87	24	49·64		
,,	29	7	23	7	36	G. P. M. and A.	24	52·03	24	52·07	24	52·05		
SEPT.	2	14	7	14	21	G. P. M. and A.	24	49·37	24	49·22	24	49·29		
,,	5	7	43	7	56	A. and G. P. M.	24	50·68	24	50·43	24	50·55		
,,	5	14	8	14	21	G. P. M. and A.	24	49·30	24	49·51	24	49·40		
,,	9	14	11	14	27	G. P. M. and A.	24	49·35	24	49·56	24	49·45		
,,	12	7	20	7	35	G. P. M. and A.	24	50·79	24	50·34	24	50·56		
,,	12	14	27	14	41	G. P. M. and A.	24	48·69	24	48·51	24	48·60		
,,	16	14	13	14	28	G. P. M. and A.	24	49·33	24	48·93	24	49·13	24	50·18
,,	19	7	19	7	33	G. P. M. and A.	24	50·26	24	49·55	24	49·90		
,,	19	14	24	14	37	G. P. M. and A.	24	51·29	24	51·52	24	51·40		
,,	23	14	14	14	29	G. P. M. and A.	24	50·30	24	50·85	24	50·57		
,,	26	7	24	7	38	G. P. M. and A.	24	51·69	24	51·05	24	51·37		
,,	26	14	9	14	22	G. P. M. and A.	24	50·37	24	51·03	24	50·70		
,,	30	14	11	14	25	G. P. M. and A.	24	51·09	24	51·63	24	51·36		
OCT.	3	7	34	7	47	G. P. M. and A.	24	53·48	24	53·81	24	53·64		
,,	3	14	9	14	28	G. P. M. and A.	24	56·01	24	55·83	24	55·92		
,,	7	11	20	11	36	G. P. M. and A.	24	50·96	24	50·75	24	50·85		
,,	10	7	9	7	37	G. P. M. and A.	24	53·20	24	52·19	24	52·69		
,,	10	14	9	14	27	G. P. M. and A.	24	51·89	24	51·52	24	51·70		
,,	14	14	16	14	33	G. P. M. and A.	24	51·63	24	51·87	24	51·75		
,,	17	6	59	7	14	G. P. M. and A.	24	51·81	24	52·30	24	52·05	24	52·66
,,	17	14	5	14	21	G. P. M. and A.	24	52·41	24	52·18	24	52·29		
,,	21	14	35	14	48	G. P. M. and A.	24	51·96	24	52·27	24	52·11		
,,	24	7	4	7	22	A. and G. P. M.	24	53·06	24	52·73	24	52·89		
,,	28	14	9	14	25	A. and G. P. M.	24	52·51	24	52·60	24	52·55		
,,	31	6	44	6	57	G. P. M. and A.	24	53·00	24	53·47	24	53·23		
,,	31	14	6	14	21	A. and G. P. M.	24	52·76	24	52·96	24	52·86		
NOV.	4	14	17	14	30	A. and G. P. M.	24	51·63	24	51·88	24	51·75		
,,	7	7	42	8	1	A. and G. P. M.	24	52·72	24	52·81	24	52·76		
,,	7	14	9	14	26	A. and G. P. M.	24	51·88	24	52·29	24	52·08		
,,	11	14	8	14	22	A. and G. P. M.	24	49·31	24	49·62	24	49·46		
,,	14	7	11	7	28	A. and G. P. M.	24	51·47	24	50·93	24	51·20		
,,	14	14	4	14	21	A. and G. P. M.	24	50·32	24	50·37	24	50·34	24	51·24

* The monthly and annual means corrected for diurnal variation appear in table VIII*a*

1919. Date.		Alibag civil time. (0 to 24 hours.) At commencement. H.	m.	At conclusion. H.	m.	Observers.	Face of circle. East.	′	West.	′	Mean inclination.	′	* Monthly mean inclination.	′
Nov.	18	14	7	14	22	A. and G. P. M.	24	52·25	24	51·80	24	52·02		
,,	21	7	0	7	17	A. and G. P. M.	24	51·77	24	51·24	24	51·50		
,,	21	14	7	14	23	A. and G. P. M.	24	50·94	24	51·22	24	51·08		
,,	25	14	10	14	27	A. and G. P. M.	24	50·90	24	51·25	24	51·07		
,,	28	7	40	7	54	G. P. M. and A.	24	51·42	24	51·22	24	51·32		
,,	28	13	15	13	30	A.	24	50·13	24	50·45	24	50·29		
Dec.	2	14	4	14	18	A. and G. P. M.	24	51·23	24	50·87	24	51·05		
,,	5	7	21	7	37	A. and G. P. M.	24	51·46	24	51·57	24	51·51		
,,	5	14	6	14	23	A. and G. P. M.	24	51·29	24	50·90	24	51·09		
,,	9	14	6	14	24	A. and G. P. M.	24	51·86	24	51·59	24	51·72		
,,	12	7	12	7	30	A. and G. P. M.	24	52·04	24	52·09	24	52·06		
,,	12	14	7	14	22	A. and G. P. M.	24	51·41	24	51·85	24	51·63	-24	52·08
,,	16	14	7	14	21	A. and G. P. M.	24	53·14	24	53·50	24	53·32		
,,	19	7	39	8	3	G. P. M. and A.	24	52·69	24	52·66	24	52·67		
,,	19	14	8	14	23	A. and G. P. M.	24	51·78	24	52·04	24	51·91		
,,	23	14	36	14	52	A. and G. P. M.	24	52·82	24	52·54	24	52·68		
,,	26	7	23	7	42	A. and G. P. M.	24	53·52	24	52·84	24	53·18		
,,	30	14	19	14	39	G. P. M. and A.	24	51·96	24	52·37	24	52·16		
												The mean* observed inclination for the year 1919 =	24	48·95

* The monthly and annual means corrected for diurnal variation appear in table VIII*a*.

Absolute Magnetic Observations, Alibag—Table Ia.

Observations of vibration and deflection, taken with magnetometer no. 7 (T.Cooke and Sons)-for the determination of absolute horizontal force.

1920.

1920. Date.	Civil time, mean.	Vibration magnet. Time of one vibration.	Effect of 90° torsion.	Tem. perature.	Rate of chronometer.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Angle of deflection of magnet marked 7. Distance. 22·5 cms.	30·0 cms.	Temperature.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Observer.	Calculated results in C. G. S. unit. Values of m.	Values of H. From deflection at distance. 22·5 cms. (H22·5)	30·0 cms. (H30·0)	Difference. H22·5 − H30·0	Mean $\frac{H_{22·5}+H_{30·0}}{2}$	*Observed monthly mean values of H
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	H. m.	S.	Sc. div.	°	S.	Cms.		° ′ ″	° ′ ″	°	Cms.	°							
JAN. 7	12 8	2·7067	1·46	27·7	+0·6	5·557	84·90	26 31 6	10 47 25	27·9	5·427	84·90	A.	936·85	0·36950	0·36949	+·00001	0·36949	
„ „	13 17	2·7083	1·46	28·0	„	5·160	84·90	26 31 14	10 47 27	28·0	5·300	84·90	A.	936·40	·36928	·36928	+·00001	·36928	
„ 15	12 10	2·7098	1·44	29·4	+0·5	4·865	85·05	26 30 45	10 47 26	29·1	5·040	85·05	A.	936·40	·36916	·36910	+·00006	·36913	
„ „	13 23	2·7083	1·45	29·	„	5·387	85·05	26 30 20	10 47 22	29·1	5·155	85·05	A.	936·79	·36938	·36931	+·00008	·36935	
„ 21	12 38	2·7068	1·43	27·9	+0·7	5·795	85·00	26 30 15	10 47 12	28·2	5·680	85·00	A.	936·74	·36957	·36952	+·00005	·36954	0·369431
„ „	13 55	2·7089	1·45	28·0	„	4·900	85·00	26 30 57	10 47 27	28·3	5·385	85·00	A.	936·25	·36922	·36917	+·00005	·36919	
„ 28	11 57	2·7062	1·45	27·8	+0·7	6·497	84·67	26 28 12	10 46 30	28·2	6·605	84·67	A.	936·40	·36987	·36979	+·00008	·36983	
„ „	13 7	2·7072	1·45	28·2	„	6·150	84·70	26 28 36	10 46 35	28·2	6·512	84·70	A.	936·22	·36973	·36967	+·00006	·36970	
FEB. 4	12 1	2·7049	1·42	26·4	+0·5	6·125	84·52	26 31 1	10 47 35	26·6	6·027	84·52	A.	936·94	·36978	·36970	+·00008	·36974	
„ „	13 13	2·7058	1·44	26·0	„	5·660	84·50	26 31 15	10 47 35	26·6	5·902	84·50	A.	936·57	·36959	·36954	+·00005	·36956	
„ 11	12 12	2·7053	1·42	25·1	+0·5	6·160	83·52	26 31 30	10 47 37	25·5	6·255	83·52	A.	936·33	·36964	·36961	+·00003	·36962	
„ „	13 26	2·7052	1·44	25·9	„	6·132	83·55	26 31 51	10 47 52	25·6	6·265	83·55	A.	936·72	·36968	·36962	+·00006	·36965	·369356
„ 17	12 2	2·7094	1·47	26·7	+0·5	5·215	83·30	26 32 40	10 48 7	26·8	5·185	83·30	A.	935·92	·36895	·36894	+·00005	·36896	
„ „	13 13	2·7082	1·42	27·0	„	4·897	83·30	26 33 7	10 48 15	26·9	5·055	83·30	A.	936·53	·36911	·36908	+·00003	·36909	
„ 25	11 46	2·7095	1·41	30·0	+0·5	4·891	83·75	26 30 23	10 47 10	30·1	4·802	83·75	A.	936·72	·36921	·36918	+·00003	·36919	
„ „	12 57	2·7106	1·41	30·1	„	4·551	83·75	26 29 56	10 46 52	30·8	4·680	83·75	A.	936·35	·36904	·36905	−·00001	·36904	
MAR. 3	14 2	2·7080	1·42	29·1	+0·3	5·911	84·55	26 29 0	10 46 50	29·6	5·626	84·55	A.	936·59	·36952	·36944	+·00008	·36948	
„ 15	15	2·7084	1·42	28·8	„	5·395	84·60	26 29 45	10 47 15	29·5	5·484	84·60	A.	936·66	·36938	·36926	+·00012	·36932	
„ 10	13 6	2·7070	1·41	28·3	+0·3	5·919	85·00	26 29 36	10 46 56	28·3	5·803	85·00	A.	936·59	·36964	·36960	+·00004	·36962	
„ „	14 23	2·7081	1·40	28·4	„	5·635	85·00	26 29 43	10 47 7	28·3	5·702	85·00	A.	936·33	·36950	·36941	+·00009	·36945	
„ 17	12 48	2·7077	1·41	28·9	+0·4	5·792	85·50	26 28 56	10 46 51	29·1	5·590	85·50	A.	936·55	·36960	·36951	+·00009	·36955	·369207
„ „	14 4	2·7094	1·42	29·7	„	5·257	85·50	26 29 22	10 47 7	29·4	5·443	85·50	A.	936·40	·36937	·36925	+·00012	·36931	
„ 24	13 17	2·7115	1·52	30·0	+0·6	3·600	86·00	26 32 51	10 48 5	30·5	3·405	86·00	A.	936·79	·36862	·36861	+·00002	·36862	
„ „	15 19	2·7133	1·51	30·8	„	2·524	86·05	26 33 56	10 48 30	30·7	2·675	86·05	A.	936·68	·36832	·36830	+·00002	·36831	
APRIL 1	12 33	2·7086	1·46	30·0	+0·5	5·720	86·80	26 27 53	10 46 21	30·0	5·495	86·80	A.	936·38	·36961	·36954	+·00007	·36957	
„ „	13 55	2·7099	1·45	30·0	„	4·885	86·80	26 29 5	10 46 37	30·0	5·280	86·80	A.	936·20	·36926	·36928	+·00001	·36928	
„ 7	12 19	2·7078	1·46	29·4	+0·4	5·670	87·15	26 28 39	10 46 41	29·5	5·527	87·15	A.	936·61	·36962	·36954	+·00008	·36958	

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1920. Date.	Civil time, mean.	Vibration magnet. Time of one vibration.	Effect of 90° torsion.	Temperature.	Rate of chronometer.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Angle of deflection of magnet marked 7. Distance. 22·5 cms.	30·0 cms.	Temperature.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Observer.	Calculated results in C. G. S. unit. Values of m.	Values of H. From deflection at distance. 22·5 cms. ($H_{22·5}$)	30·0 cms. ($H_{30·0}$)	Difference. $H_{22·5}-H_{30·0}$	Mean. $\frac{H_{22·5}+H_{30·0}}{2}$	*Observed monthly mean values of H
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	H. m.	S.	Sc. div.	°	S.	Cms.	°	° ′ ″	° ′ ″	°	Cms.	°							
Oct. 6	12 35	2·7095	1·44	31·3	+0·5	5·110	88·75	26 27 51	10 46 25	31·0	4·890	88·75	M. D. K.	936·59	0·36950	0·36942	+·00008	0·36946	
,, ,,	14 14	2·7103	1·43	30·4	,,	4·137	88·75	26 28 31	10 46 34	31·0	4·632	88·75	M. D. K.	936·27	·36924	·36918	+·00006	·36921	
,, 13	12 32	2·7097	1·45	30·9	+0·7	4·810	89·10	26 28 7	10 46 22	30·9	4·745	89·10	M. D. K.	936·44	·36942	·36938	+·00004	·36940	
,, ,,	14 6	2·7096	1·41	30·5	,,	4·487	89·10	26 28 19	10 46 27	31·0	4·647	89·10	M. D. K.	936·46	36937	·36933	+·00004	·36935	·369382
,, 20	13 40	2·7088	1·41	30·4	+0·8	4·867	89·30	26 28 40	10 46 37	30·6	4·665	89·30	M. D. K.	936·72	·36947	·36941	+·00006	·36944	
, ,,	15 11	2·7102	1·43	30·5	,,	4·300	89·27	26 28 47	10 46 37	30·8	4·477	89·27	M. D. K.	936·35	·36926	·36922	+·00004	·36924	
,, 27	13 12	2·7092	1·42	31·0	+0·4	5·095	89·05	26 27 34	10 46 12	31·0	4·927	89·05	M. D. K.	936·53	·36956	·36950	+·00006	·36953	
,, ,,	14 35	2·7098	1·44	31·3	,,	4·667	89·05	26 27 46	10 46 12	31·2	4·812	89·05	M. D. K.	936·46	·36945	·36942	+ 00003	·36943	
Nov. 3	12 42	2·7083	1·47	30·0	+0·3	5·230	88·65	26 27 56	10 46 19	30·1	5·135	88·65	M. D. K.	936·48	·36963	·36958	+·00005	·36960	
,, ,,	14 9	2·7084	1·49	30·0	,,	4·900	88·65	26 28 23	10 46 33	30·0	5·025	88·65	M. D. K.	936·57	·36957	·36950	+·00007	·36953	
,, 10	12 54	2·7080	1·46	29·2	+0·4	5·150	88·40	26 29 0	10 46 35	29·5	4·945	88·40	M. D. K.	936·50	·36954	·36952	+·00002	·36953	
,, ,,	14 18	2·7094	1·51	29·8	,,	4·515	88·40	26 29 18	10 46 46	29·5	4·777	88·40	M. D. K.	936·27	·36957	·36933	+·00004	·36935	·369487
,, 17	12 20	2·7072	1·50	28·6	+0·3	5·420	87·85	26 29 31	10 46 51	28·8	5·230	87·85	M. D. K.	936·66	·36961	·36957	+·00004	·36959	
,, ,,	13 51	2·7087	1·44	29·2	,,	4·805	87·85	26 29 39	10 46 57	29·0	5·080	87·85	M. D. K.	936·40	·36942	·36938	+·00004	·36940	
,, 24	12 41	2·7083	1·46	29·1	+0·4	5·202	87·55	26 29 14	10 46 55	29·2	5·127	87·55	M. D. K.	936·46	·36949	·36941	+·00008	·36945	
,, ,,	14 10	2·7088	1·46	29·7	,,	4·905	87·55	26 29 7	10 46 47	29·3	5·040	87·55	M. D. K.	936·38	·36948	·36943	+·00005	·36945	
Dec. 1	12 38	2·7068	1·47	27·0	+0·5	5·296	87·05	26 30 34	10 47 24	27·2	5·247	87·05	M. D. K.	936·42	·36955	·36948	+·00007	·36951	
,, ,, 2	2·7076	1·49	27·7	,,	5·082	87·05	26 30 45	10 47 20	27·3	5·175	87·05	M. D. K.	936·33	·36948	·36945	+·00003	·36946	
,, 8	12 31	2·7067	1·47	27·4	+0·2	5·426	86·30	26 30 12	10 47 12	27·2	5·420	86·30	M. D. K.	936·42	·36963	·36958	+·00005	·36960	
,, ,,	13 54	2·7078	1·49	28·0	,,	5·268	86·30	26 30 2	10 47 0	27·7	5·376	86·30	M. D. K.	936·18	·36951	·36950	+·00001	·36950	
,, 15	13 22	2·7061	1·44	27·0	+0·4	5·630	85·45	26 30 32	10 47 9	27·2	5·517	85·45	M. D. K.	936·59	·36966	·36965	+·00001	·36965	·369504
,, ,,	15 2	2·7078	1·60	28·0	,,	5·400	85·40	26 30 26	10 47 1	27·5	5·520	85·40	M. D. K.	936·20	·36948	·36950	−·00002	·36949	
,, 22	13 11	2·7065	1·50	27·0	+0·4	5·432	84·75	26 30 45	10 47 16	27·5	5·427	84·75	M. D. K.	936·57	·36954	·36953	+·00001	·36953	
,, ,,	14 35	2·7073	1·46	28·1	,,	5·463	84·75	26 29 53	10 47 2	28·0	5·450	84·75	M. D. K.	936·44	·36958	·36954	+·00004	·36956	
,, 29	13 31	2·7068	1·54	26·2	+0·4	5·210	84·15	26 31 57	10 47 52	26·3	5·058	84·15	M. D. K.	936·38	·36941	·36935	+·00006	·36938	
,, ,,	15 6	2·7075	1·51	27·3	,,	4·815	84·15	26 31 57	10 47 44	26·8	4·933	84·15	M. D. K.	936·46	·36937	·36935	+·00002	·36936	
													Mean for the year =	936·47			+·000046		

The mean * observed value of the horizontal force for the year 1920 = 0·369408

* The monthly and annual means corrected for diurnal variation appear in table VIII.

Absolute Magnetic Observations, Alibag—Table Ib.

Observations of vibration and deflection, taken with magnetometer no. 3 (Cambridge Scientific Instrument Co.) and magnets belonging to magnetometer no. 137 (Dover Charlton) for the determination of absolute horizontal force.

1920.

1920. Date.	Civil time, mean.	Vibration magnet. Time of one vibration.	Effect of 90° torsion.	Temperature.	Rate of chronometer.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Angle of deflection. Distance. 23 cms.	30 cms.	Temperature.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Observer.	Calculated results in C. G. S. unit. Values of m.	Values of H. From deflection at distance. 23 cms. (H_{23}).	30 cms. (H_{30}).	Difference. $H_{23}-H_{30}$	Mean. $\frac{H_{23}+H_{30}}{2}$	*Observed monthly mean values of H.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	H. m.	S.	Sc. div.	°	S.	Cms.	°	° ′ ″	° ′ ″	°	Cms.	°							
JAN. 5	10 59	3·4037	2·00	27·6	+0·6	5·385	84·75	15 16 53	6 47 21	27·5	5·345	84·75	A.	592·93	0·36938	0·36945	−·00007	0·36941	
,, ,,	12 17	3·4043	1·98	27·8	,,	5·315	84·75	15 17 1	6 47 26	27·1	5·297	84·75	A.	592·84	·36933	·36939	−·00006	·36936	
,, 12	12 28	3·4069	1·94	30·0	+0·6	5·040	85·00	15 17 0	6 47 21	28·9	5·080	85·00	A.	592·90	·36908	·36917	−·00009	·36912	
,, ,,	13 46	3·4059	1·92	28·6	,,	4·930	85·00	15 16 57	6 47 22	29·1	5·041	85·00	A.	592·93	·36907	·36916	−·00009	·36911	
,, 20	12 52	3·4024	1·88	27·2	+0·6	5·955	84·97	15 16 37	6 47 12	27·0	5·740	84·97	A.	592·94	·36957	·36967	−·00010	·36962	·369324
,, ,,	14 11	3·4036	1·90	27·5	,,	5·545	84·97	15 16 56	6 47 20	27·0	5·705	84·97	A.	592·86	·36941	·36950	−·00009	·36945	
,, 26	12 42	3·4039	1·96	27·5	+0·8	5·680	84·75	15 17 10	6 47 32	27·4	5·530	84·75	A.	592·97	·36929	·36933	−·00004	·36931	
,, ,,	13 55	3·4049	1·99	27·8	,,	5·137	84·75	15 17 13	6 47 37	27·4	5·347	84·75	A.	592·88	·36921	·36922	−·00001	·36921	
FEB. 2	11 53	3·4037	2·01	27·2	+0·5	5·260	84·65	15 17 1	6 47 32	26·8	5·215	84·65	A.	592·86	·36937	·36939	−·00002	·36938	
,, ,,	13 7	3·4043	2·00	26·8	,,	5·128	84·65	15 17 17	6 47 32	26·8	5·190	84·65	A.	592·75	·36922	·36929	−·00007	·36925	
,, 9	12 17	3·4018	2·04	25·5	+0·5	5·855	83·87	15 16 29	6 47 25	25·2	5·805	83·67	A.	592·63	·36967	·36965	+·00002	·36966	
,, ,,	13 32	3·4020	2·00	25·4	,,	5·605	83·85	15 17 41	6 48 5	25·0	5·723	83·85	A.	592·99	·36943	·36933	+·00010	·36938	
,, 16	12 44	3·4015	2·11	26·8	+0·5	6·351	83·40	15 16 17	6 47 7	26·1	6·378	83·40	A.	592·82	·36977	·36984	−·00007	·36980	·369510
,, ,,	13 56	3·4024	2·10	26·5	,,	6·017	83·40	15 16 33	6 47 17	26·1	6·322	83·40	A.	592·72	·36960	·36964	−·00004	·36962	
,, 23	11 50	3·4042	2·13	29·7	+0·5	6·110	83·57	15 15 17	6 47 6	29·0	6·015	83·57	A.	592·95	·36966	·36953	+·00013	·36959	
,, ,,	13 4	3·4051	2·10	29·5	,,	5·712	83·57	15 16 14	6 47 10	28·7	5·880	83·57	A.	592·90	·36939	·36942	−·00003	·36940	
MARCH 1	12 11	3·4049	2·09	30·3	+0·3	5·675	84·35	15 16 2	6 47 27	29·3	5·517	84·35	A.	593·21	·36947	·36933	+·00014	·36940	
,, ,,	13 24	3·4053	2·11	29·8	,,	5·550	84·45	15 15 57	6 47 17	29·2	5·555	84·45	A.	592·98	·36940	·36933	+·00007	·36936	
,, 8	12 42	3·4042	2·11	28·1	+0·3	5·525	84·90	15 16 32	6 47 16	27·8	5·470	84·90	A.	592·84	·36939	·36943	−·00004	·36941	
,, ,,	13 56	3·4047	2·11	28·2	,,	5·007	84·90	15 16 46	6 47 15	27·8	5·345	84·90	A.	592·80	·36929	·36939	−·00010	·36934	
,, 15	13 9	3·4055	2·73	28·8	+0·4	4·850	85·40	15 17 20	6 47 37	28·5	4·297	85·40	A.	592·99	·36905	·36910	−·00005	·36907	·369335
,, ,,	14 24	3·4085	2·80	28·8	,,	3·440	85·40	15 17 45	6 48 0	28·3	3·910	85·40	A.	592·65	·36865	·36861	+·00004	·36863	
,, 22	12 54	3·4037	2·10	30·3	+0·5	6·277	85·90	15 15 33	6 46 46	29·8	6·085	85·90	A.	593·16	·36965	·36972	−·00007	·36968	
,, ,,	14 14	3·4045	2·15	30·1	,,	6·180	85·95	15 14 23	6 46 20	29·8	6·135	85·95	A.	592·65	·36977	·36981	−·00004	·36979	
APRIL 6	11 44	3·4057	2·06	29·3	+0·4	4·955	87·10	15 16 59	6 47 25	29·0	4·909	87·10	A.	593·03	·36913	·36920	−·00007	·36916	
,, ,,	13 3	3·4061	2·08	29·3	,,	4·790	87·05	15 16 1	6 47 2	28·8	4·925	87·05	A.	592·64	·36929	·36934	−·00005	·36931	
,, 12	12 33	3·4052	2·06	29·8	+0·5	5·500	87·45	15 15 20	6 46 40	29·3	5·440	87·45	A.	592·69	·36954	·36962	−·00008	·36958	

* The monthly and annual means corrected for diurnal variation appear in table VIIIa.

1920. Date.	Vibration magnet. Civil time, mean.	Time of one vibration.	Effect of 90° torsion.	Temperature.	Rate of chronometer.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Angle of deflection. Distance. 23 cms.	30 cms.	Temperature.	Corresponding mean reading of H. F. magnetograph. Ordinate.	Thermometer.	Observer.	Calculated results in C. G. S. unit. Values of m.	Values of H. From deflection at distance. 23 cms. (H_{23}).	30 cms. (H_{30}).	Difference. $H_{23}-H_{30}$	Mean. $\frac{H_{23}+H_{30}}{2}$	*Observed monthly mean values of H.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	H. m.	S.	Sc. div.	°	S.	Cms.	°	° ′ ″	° ′ ″	°	Cms.	°							
April 12	14 5	3·4065	2·05	29·8	+0·5	5·000	87·40	15 15 22	6 46 57	29·3	5·342	87·40	A.	592·57	0·36939	0·36934	+·00005	0·36936	0·369350
,, 19	12 19	3·4050	1·99	30·4	+0·4	4·750	88·15	15 16 51	6 47 29	30·1	4·732	88·15	A.	593·46	·36924	·36925	−·00001	·36924	
,, ,,	13 42	3·4060	1·99	30·5	,,	4·195	88·15	15 17 5	6 47 45	30·1	4·622	88·15	A.	593·43	·36910	·36903	+·00007	·36906	
,, 26	12 44	3·4047	1·99	31·6	+0·7	5·180	88·72	15 16 5	6 46 57	30·6	5·055	88·72	A.	593·42	·36948	·36958	−·00010	·36953	
,, ,,	14 9	3·4048	2·03	30·7	,,	4·767	88·75	15 15 41	6 46 47	30·2	4·972	88·75	A.	593·10	·36951	·36961	−·00010	·36956	
May 3	12 13	3·4059	2·02	31·1	+0·6	4·635	89·45	15 16 40	6 47 21	30·5	4·690	89·45	A.	593·38	·36920	·36923	−·00003	·36921	
,, ,,	13 30	3·4063	1·99	30·8	,,	4·250	89·40	15 16 47	6 47 27	30·2	4·655	89·40	A.	593·28	·36915	·36916	−·00001	·36915	
,, 10	13 53	3·4049	1·97	31·4	+0·7	4·925	89·90	15 16 10	6 47 15	31·0	4·867	89·90	A.	593·55	·36939	·36938	+·00001	·36938	
,, ,,	15 9	3·4054	1·97	31·7	,,	4·637	89·90	15 16 33	6 47 30	30·9	4·812	89·90	A.	593·64	·36929	·36923	+·00006	·36926	
,, 18	13 27	3·4052	2·02	30·5	+0·2	4·595	90·40	15 13 30	6 46 1	30·8	4·515	90·40	M. D. K.	592·47	·36982	·36983	−·00001	·36982	·369540
,, ,,	14 45	3·4057	2·01	30·9	,,	4·357	90·40	15 13 39	6 46 17	30·9	4·430	90·40	M. D. K.	592·57	·36976	·36968	+·00008	·36972	
,, 24	12 53	3·4056	2·01	31·9	+0·7	5·130	90·90	15 13 24	6 46 5	31·4	5·007	90·90	M. D. K.	592·68	·36986	·36983	+·00003	·36984	
,, ,,	14 7	3·4056	2·00	31·8	,,	4·760	90·90	15 13 43	6 46 5	31·3	4·900	90·90	M. D. K.	592·71	·36980	·36983	−·00003	·36981	
,, 31	13 45	3·4057	2·03	31·9	+0·6	4·777	91·45	15 14 27	6 46 42	31·8	4·630	91·45	M. D. K.	593·10	·36961	·36950	+·00011	·36955	
,, ,,	14 42	3·4054	2·03	32·2	,,	4·105	91·47	15 14 21	6 46 32	31·7	4·477	91·47	M. D. K.	593·10	·36969	·36963	+·00006	·36966	
June 7	12 55	3·4061	2·04	32·8	+0·7	5·115	92·05	15 14 36	6 46 40	32·1	4·900	92·05	M. D. K.	593·21	·36959	·36952	+·00007	·36955	
,, ,,	14 15	3·4072	1·98	33·1	,,	4·477	92·05	15 14 13	6 46 35	32·0	4·675	92·05	M. D. K.	592·95	·36957	·36948	+·00009	·36952	
,, 14	12 45	3·4046	2·11	29·8	0·0	5·000	90·60	15 15 26	6 46 50	29·8	4·867	90·60	M. D. K.	592·94	·36952	·36955	−·00003	·36953	
,, ,,	14 2	3·4056	2·01	30·8	,,	4·610	90·60	15 15 22	6 47 6	29·8	4·772	90·60	M. D. K.	593·01	·36952	·36941	+·00011	·36946	·369639
,, 22	13 57	3·4048	2·27	30·7	+1·7	5·095	89·25	15 13 58	6 46 30	29·8	5·035	89·25	M. D. K.	592·67	·36987	·36975	+·00012	·36981	
,, ,,	15 20	3·4049	2·25	30·3	,,	4·860	89·25	15 13 57	6 46 21	29·9	4·942	89·25	M. D. K.	592·56	·36983	·36978	+·00005	·36980	
,, 28	12 48	3·4037	2·13	30·3	+0·7	5·927	88·42	15 14 23	6 46 37	29·8	5·705	88·42	M. D. K.	592·91	·36987	·36979	+·00008	·36983	
,, ,,	14 51	3·4056	2·10	30·7	,,	4·965	88·40	15 14 30	6 46 45	29·9	5·450	88·40	M. D. K.	592·73	·36967	·36956	+·00011	·36961	
July 5	14 3	3·4027	2·14	28·9	+0·2	5·900	88·30	15 14 10	6 46 28	28·9	5·640	88·30	M. D. K.	592·71	·36999	·36993	+·00006	·36996	
,, ,,	15 43	3·4039	2·07	29·0	,,	5·200	88·25	15 14 39	6 46 38	28·6	5·440	88·25	M. D. K.	592·60	·36979	·36976	+·00003	·36977	
,, 12	13 7	3·4043	2·05	28·3	+1·1	5·365	86·40	15 15 17	6 47 2	28·3	5·072	86·40	M. D. K.	592·65	·36961	·36951	+·00010	·36956	
,, ,,	14 44	3·4053	2·00	28·9	,,	4·377	86·40	15 15 21	6 47 5	28·5	4·835	86·40	M. D. K.	592·61	·36952	·36942	+·00010	·36947	·369580
,, 19	11 3	3·4039	2·04	28·6	+1·3	5·570	85·50	15 15 39	6 46 52	28·5	5·447	85·50	M. D. K.	592·79	·36959	·36962	−·00006	·36962	
,, ,,	12 32	3·4037	2·11	29·5	,,	5·310	85·40	15 15 51	6 47 0	28·4	5·372	85·40	M. D. K.	592·99	·36963	·36967	−·00002	·36966	
,, 26	14 0	3·4044	2·06	28·4	+1·2	5·030	84·95	15 16 33	6 47 22	27·9	5·012	84·95	M. D. K.	592·91	·36939	·36939	·00000	·36939	
,, ,,	15 43	3·4051	2·13	28·6	,,	4·737	84·92	15 17 3	6 47 26	27·9	4·950	84·92	M. D. K.	592·93	·3 923	·36930	−·00007	·36926	
Aug. 2	13 29	3·4032	2·04	27·8	+1·4	5·522	84·50	15 15 47	6 47 7	27·6	5·475	84·50	M. D. K.	592·80	·36965	·36962	+·00003	·36963	
,, ,,	15 15	3·4040	2·07	28·7	,,	5·307	84·52	15 15 52	6 47 16	27·8	5·405	84·52	M. D. K.	592·87	·36960	·36951	+·00009	·36955	
,, 9	13 9	3·4045	2·02	29·1	+1·4	5·030	84·75	15 15 50	6 47 9	28·9	5·130	84·75	M. D. K.	592·94	·36950	·36946	+·00004	·36948	

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Absolute Magnetic Observations, Alibag—Table IIa.

OBSERVATIONS OF ABSOLUTE DECLINATION, 1920.

Taken with magnetometer no. 7 (T.Cooke and Sons).

1920. Date.	Alibag civil time.	Mean readings. Collimator magnet. Scale apparently. Erect.	Collimator magnet. Scale apparently. Inverted.	Horizontal circle with telescope pointed to. Scale of collimator magnet.	Kennery light house.	Torsion. Mean.	Effect of 90°.	Observer.	Corresponding reading of declination magnetograms.	Absolute easterly declination corrected for torsion.	Monthly mean. Corresponding reading of declination magnetograms.	*Observed absolute easterly declination.
1	2	3	4	5	6	7	8	9	10	11	12	13
	H. m.	Sc. div.	Sc. div.	′ ″	′ ″		Sc. div.		Cms.	° ′ ″	Cms.	′ ″
JAN. 2	12 20	55·6	..	84 51 40	222 23 30	0	..	A.	2·810	0 21 35		
„ 8	12 13	55·6	..	84 51 20	222 23 15	0	..	A.	2·830	0 21 30		
„ 15	10 58	55·6	..	84 54 20	222 23 10	0	..	A.	3·100	0 24 35	2·884	0 22 7
„ 22	12 15	55·6	..	84 51 45	222 23 25	0	..	A.	2·850	0 21 45		
„ 29	13 20	55·6	..	84 51 15	222 23 30	0	..	A.	2·830	0 21 10		
FEB. 5	12 23	55·6	..	84 51 40	222 23 25	0	..	A.	2·890	0 21 40		
„ 12	12 30	55·6	..	84 51 50	222 23 5	0	..	A.	2·910	0 22 10		
„ 19	12 34	55·6	..	84 53 15	222 23 10	0	..	A.	3·070	0 23 30	2·962	0 22 26
„ 26	11 44	55·6	..	84 52 10	222 23 10	0	..	A.	2·980	0 22 25		
MARCH 4	12 8	55·6	..	84 50 35	222 23 15	0	..	A.	2·810	0 20 45		
„ 11	11 31	55·6	..	84 52 10	222 23 5	0	..	A.	2·990	0 22 30		
„ 18	12 13	55·6	..	84 49 40	222 23 5	0	..	A.	2·730	0 20 0	2·840	0 21 2
„ 25	12 33	55·6	..	84 50 30	222 23 0	0	..	A.	2·830	0 20 55		
APRIL 1	11 27	55·6	..	84 49 40	222 23 15	0	..	A.	2·705	0 19 50		
„ 8	12 15	55·6	..	84 48 0	222 22 55	0	..	A.	2·550	0 18 30		
„ 15	12 42	55·6	..	84 48 55	222 23 10	0	..	A.	2·605	0 19 10	2·597	0 19 4
„ 22	13 12	55·6	..	84 49 15	222 23 10	0	..	A.	2·655	0 19 30		
„ 29	13 8	55·6	..	84 48 10	222 23 15	0	..	A.	2·470	0 18 20		
MAY 6	13 29	55·6	..	84 49 35	222 23 15	0	..	A.	2·600	0 19 45		
„ 13	12 35	55·6	..	84 48 0	222 22 50	0	..	M. D. K.	2·420	0 18 35		
„ 20	12 27	55·6	..	84 48 25	222 22 45	0	..	M. D. K.	2·470	0 19 5	2·530	0 19 24
„ 27	12 47	55·6	..	84 49 55	222 23 10	0	..	M. D. K.	2·630	0 20 10		
JUNE 3	12 37	55·6	..	84 47 5	222 23 10	0	..	M. D. K.	2·350	0 17 20		
„ 10	13 9	55·6	..	84 47 55	222 23 10	0	..	M. D. K.	2·380	0 18 10		
„ 17	12 32	55·6	..	84 46 55	222 23 0	0	..	M. D. K.	2·340	0 17 20	2·345	0 17 24
„ 24	12 49	55·6	..	84 46 30	222 23 10	0	..	M. D. K.	2·310	0 16 45		
JULY 1	12 53	55·6	..	84 47 20	222 23 5	0	..	M. D. K.	2·410	0 17 40		
„ 8	11 46	55·6	..	84 47 30	222 23 5	0	..	M. D. K.	2·430	0 17 50		
„ 15	12 13	55·6	..	84 47 5	222 23 20	0	..	M. D. K.	2·345	0 17 10	2·363	0 17 17
„ 22	12 20	55·6	..	84 47 20	222 23 30	0	..	M. D. K.	2·370	0 17 15		
„ 29	12 56	55·6	..	84 46 25	222 23 20	0	..	M. D. K.	2·260	0 16 30		
AUG. 5	11 26	55·6	..	84 48 10	222 23 25	0	..	M. D. K.	2·420	0 18 10		
„ 12	11 47	55·6	..	84 47 55	222 23 20	0	..	M. D. K.	2·390	0 18 0		
„ 19	11 36	55·6	..	84 47 20	222 23 30	0	..	M. D. K.	2·340	0 17 15	2·357	0 17 32
„ 26	12 50	55·6	..	84 46 20	222 23 0	0	..	M. D. K.	2·280	0 16 45		
SEP. 2	12. 4	55·6	..	84 46 0	222 23 30	0	..	M. D. K.	2·265	0 15 55		
„ 9	11 58	55·6	..	84 46 10	222 23 30	0	..	M. D. K.	2·285	0 16 5		
„ 16	12 55	55·6	..	84 47 10	222 23 30	0	..	M. D. K.	2·375	0 17 5	2·317	0 16 23
„ 23	12 7	55·6	..	84 46 40	222 23 40	0	..	M. D. K.	2·335	0 16 25		
„ 30	12 41	55·6	..	84 46 40	222 23 40	0	..	M. D. K.	2·325	0 16 25		
OCT. 7	12 32	55·6	..	84 47 50	222 23 35	0	..	M. D. K.	2·445	0 17 40		
„ 14	11 13	55·6	..	84 46 55	222 23 40	0	..	M. D. K.	2·310	0 16 40		
„ 21	12 1	55·6	..	84 46 55	222 23 35	0	..	M. D. K.	2·345	0 16 45	2·405	0 17 25
„ 28	12 5	55·6	..	84 48 45	222 23 35	0	..	M. D. K.	2·520	0 18 35		
NOV. 4	12 15	55·6	..	84 48 45	222 23 35	0	..	M. D. K.	2·535	0 18 35		
„ 11	12 30	55·6	..	84 48 10	222 23 25	0	..	M. D. K.	2·490	0 18 10		
„ 18	12 8	55·6	..	84 46 25	222 23 20	0	..	M. D. K.	2·330	0 16 30	2·454	0 17 47
„ 25	12 22	55·6	..	84 47 55	222 23 25	0	..	M. D. K.	2·462	0 17 55		
DEC. 2	12 4	55·6	..	84 47 50	222 23 10	0	..	M. D. K.	2·470	0 18 5		
„ 9	12 24	55·6	..	84 48 55	222 23 0	0	..	M. D. K.	2·585	0 19 0		
„ 16	12 20	55·6	..	84 47 20	222 23 0	0	..	M. D. K.	2·415	0 17 45	2·438	0 17 52
„ 23	12 35	55·6	..	84 47 15	222 22 50	0	..	M. D. K.	2·420	0 17 50		
„ 30	12 9	55·6	..	84 46 15	222 23 0	0	..	M. D. K.	2·300	0 16 40		

The mean* observed declination for the year 1920= 0° 18′ 49″

* The monthly and annual means corrected for diurnal variation appear in table VIII.

Absolute Magnetic Observations, Alibag—Table IIb.

OBSERVATIONS OF ABSOLUTE DECLINATIONS, 1920.

Taken with magnetometer no. 3 (Cambridge Scientific Instrument Co.) and magnets belonging to magnetometer no. 137 (Dover Charlton).

1920. Date.	Alibag civil time.	Mean readings. Collimator magnet. Scale apparently. Erect.	Collimator magnet. Scale apparently. Inverted.	Horizontal circle with telescope pointed to. Scale of collimator magnet.	Horizontal circle with telescope pointed to. Kennery light house.	Torsion. Mean.	Torsion. Effect of 90°	Observer.	Corresponding reading of declination magnetograms.	Monthly mean. Absolute easterly declination corrected for torsion.	Monthly mean. Corresponding reading of declination magnetograms.	Monthly mean. * Observed absolute easterly declination.
1	2	3	4	5	6	7	8	9	10	11	12	13
	H. m.	Sc. div.	Sc. div.	° ′ ″	° ′ ″	c	Sc. div.		Cms.	° ′ ″	Cms.	° ′ ″
JAN. 2	12 54	44·00	44·85	275 49 35	53 22 5	0	..	A.	2·780	0 20 8		
,, 8	12 38	44·00	44·80	275 50 50	53 22 10	0	..	A.	2·885	0 21 20		
,, 15	10 28	44·00	44·40	275 52 50	53 22 20	0	..	A.	3·185	0 23 32	2·905	0 21 23
,, 22	12 45	44·00	44·52	275 49 40	53 21 45	0	..	A.	2·850	0 20 51		
,, 29	13 48	44·00	44·40	275 49 50	53 21 50	0	..	A.	2·825	0 21 2		
FEB. 5	12 46	44·00	44·20	275 49 55	53 21 50	0	..	A.	2·875	0 21 19		
,, 12	12 58	44·00	44·60	275 51 20	53 22 10	0	..	A.	2·842	0 22 1	2·937	0 22 15
,, 19	12 58	44·00	44·40	275 52 20	53 22 0	0	..	A.	3·065	0 23 22		
,, 26	12 9	44·00	44·30	275 51 5	53 21 55	0	..	A.	2·965	0 22 18		
MARCH 4	12 39	44·00	44·70	275 50 0	53 22 20	0	..	A.	2·850	0 20 36		
,, 11	11 58	44·00	44·40	275 51 20	53 21 50	0	..	A.	2·995	0 22 32	2·856	0 20 44
,, 18	12 43	44·00	44·40	275 48 10	53 22 20	0	..	A.	2·705	0 18 52		
,, 25	12 8	44·00	44·50	275 50 10	53 22 10	0	..	A.	2·875	0 20 57		
APRIL 1	11 7	44·00	44·40	275 49 0	53 22 20	0	..	A.	2·750	0 19 42		
,, 8	11 42	44·00	44·60	275 48 20	53 22 50	0	..	A.	2·610	0 18 21		
,, 15	13 22	43·85	44·60	275 48 35	53 22 0	0	..	A.	2·600	0 19 18	2·621	0 18 38
,, 22	13 38	44·00	44·75	275 47 30	53 21 50	0	..	A.	2·650	0 18 23		
,, 29	13 37	44·00	44·70	275 47 0	53 22 20	0	..	A.	2·497	0 17 26		
MAY 6	14 14	44·00	44·20	275 48 30	53 22 20	0	..	A.	2·680	0 19 24		
,, 13	13 3	44·00	44·60	275 46 20	53 21 40	0	..	M. D. K.	2·430	0 17 31	2·559	0 18 41
,, 20	12 59	44·00	44·55	275 46 30	53 21 50	0	..	M. D. K.	2·490	0 17 35		
,, 27	13 15	44·00	44·70	275 49 20	53 21 50	0	..	M. D. K.	2·637	0 20 16		
JUNE 3	13 7	44·00	44·90	275 47 0	53 21 35	0	..	M. D. K.	2·375	0 17 59		
,, 10	13 39	44·00	44·70	275 46 55	53 21 35	0	..	M. D. K.	2·397	0 18 6		
,, 17	12 53	44·00	44·55	275 45 55	53 22 5	0	..	M. D. K.	2·310	0 16 45	2·363	0 17 34
,, 24	13 29	44·00	44·60	275 46 50	53 22 15	0	..	M. D. K.	2·370	0 17 26		
JULY 1	13 15	44·00	44·30	275 46 30	53 22 20	0	..	M. D. K.	2·435	0 17 18		
,, 8	12 6	44·00	44·20	275 46 15	53 22 10	0	..	M. D. K.	2·427	0 17 19		
,, 15	12 35	44·00	44·30	275 45 25	53 21 55	0	..	M. D. K.	2·340	0 16 38	2·378	0 16 57
,, 22	12 41	44·00	44·30	275 46 40	53 22 25	0	..	M. D. K.	2·395	0 17 23		
,, 29	13 29	44·00	44·20	275 44 50	53 21 55	0	..	M. D. K.	2·292	0 16 9		
AUG. 5	11 49	44·00	44·70	275 46 40	53 22 0	0	..	M. D. K.	2·400	0 17 26		
,, 12	12 16	44·00	44·10	275 46 30	53 22 20	0	..	M. D. K.	2·355	0 17 29	2·350	0 17 2
,, 19	11 51	44·00	44·60	275 45 45	53 22 10	0	..	M. D. K.	2·300	0 16 26		
,, 26	13 23	44·00	44·50	275 45 30	53 21 40	0	..	M. D. K.	2·345	0 16 47		
SEPT. 2	12 16	44·05	44·35	275 44 25	53 22 0	0	..	M. D. K.	2·262	0 15 33		
,, 9	12 33	44·00	44·45	275 44 25	53 22 15	0	..	M. D. K.	2·260	0 15 10		
,, 16	13 18	44·05	44·40	275 45 40	53 21 50	0	..	M. D. K.	2·392	0 16 56	2·324	0 16 8
,, 23	12 29	44·00	44·60	275 45 15	53 21 35	0	..	M. D. K.	2·330	0 16 31		
,, 30	12 59	44·00	44·60	275 45 40	53 22 0	0	..	M. D. K.	2·377	0 16 31		
OCT. 7	12 56	44·00	44·55	275 46 50	53 21 45	0	..	M. D. K.	2·477	0 18 0		
,, 14	11 46	44·05	44·50	275 44 35	53 21 45	0	..	M. D. K.	2·290	0 15 50	2·420	0 17 20
,, 21	12 25	44·00	44·50	275 45 40	53 21 55	0	..	M. D. K.	2·355	0 16 42		
,, 28	12 28	44·00	44·50	275 47 25	53 21 35	0	..	M. D. K.	2·560	0 18 47		
NOV. 4	12 49	44·00	44·55	275 46 50	53 21 30	0	..	M. D. K.	2·535	0 18 15		
,, 11	12 52	44·00	44·50	275 46 15	53 21 35	0	..	M. D. K.	2·540	0 17 37	2·483	0 17 20
,, 18	12 32	44·05	44·67	275 45 10	53 21 15	0	..	M. D. K.	2·360	0 16 45		
,, 25	12 51	44·00	44·90	275 45 30	53 21 20	0	..	M. D. K.	2·497	0 16 44		
DEC. 2	12 29	44·00	44·45	275 46 5	53 21 20	0	..	M. D. K.	2·490	0 17 45		
,, 9	12 48	44·00	44·37	275 46 40	53 21 20	0	..	M. D. K.	2·617	0 18 25	2·472	0 17 39
,, 16	12 45	44·00	44·75	275 46 0	53 21 20	about 10° E	0·48	M. D. K.	2·447	0 18 17		
,, 23	13 9	44·00	44·50	275 46 0	53 21 20	0	..	M. D. K.	2·487	0 17 37		
,, 30	12 38	44·00	44·60	275 44 40	53 21 20	0	..	M. D. K.	2·317	0 16 11		

The mean* observed declination for the year 1920 = 0° 18′ 28″

* The monthly and annual means corrected for diurnal variation appear in table VIIIa.

Absolute Magnetic Observations, Alibag—Table IIIa.

OBSERVATIONS OF INCLINATION, 1920.

Taken with inductor no. 41 by Schulze and galvanometer no. 200 by Plath.

1920. Date.		Alibag civil time (0 to 24 hours). At commencement. H.	m.	At conclusion. H.	m.	Observers.	Face of circle. East. °	′	West. °	′	Mean inclination. °	′	* Monthly mean inclination. °	′
JAN.	2	7	35	7	53	A. and G. P. M.	24	54·24	24	53·74	24	53·99		
,,	3	11	35	11	52	A. and G. P. M.	24	52·01	24	51·88	24	51·94		
,,	5	10	26	10	41	G. P. M. and A.	24	51·80	24	51·64	24	51·72		
,,	7	11	20	11	34	A. and G. P. M.	24	51·99	24	51·69	24	51·84		
,,	9	8	17	8	33	A. and G. P. M.	24	52·40	24	51·94	24	52·17		
,,	10	14	9	14	23	G. P. M. and A.	24	53·79	24	53·95	24	53·87		
,,	12	11	20	11	36	A. and G. P. M.	24	50·82	24	50·35	24	50·58		
,,	16	8	2	8	18	G. P. M. and A.	24	53·20	24	53·13	24	53·16		
,,	17	13	5	13	20	A. and G. P. M.	24	48·29	24	48·10	24	48·19	24	51·30
,,	19	12	5	12	23	G. P. M. and A.	24	49·74	24	50·10	24	49·92		
,,	21	11	40	11	54	A. and G. P. M.	24	48·24	24	48·31	24	48·27		
,,	23	8	14	8	27	G. P. M. and A.	24	52·87	24	53·09	24	52·98		
,,	24	14	14	14	33	G. P. M. and A.	24	50·50	24	51·34	24	50·92		
,,	26	11	17	11	31	G. P. M. and A.	24	51·42	24	51·78	24	51·60		
,,	28	11	10	11	24	A. and G. P. M.	24	48·45	24	48·88	24	48·66		
,,	30	8	5	8	19	G. P. M. and A.	24	51·86	24	51·82	24	51·84		
,,	31	11	43	11	57	G. P. M. and A.	24	50·48	24	50·30	24	50·39		
FEB.	2	10	55	11	12	A. and G. P. M.	24	51·45	24	50·61	24	51·03		
,,	4	11	5	11	19	A. and G. P. M.	24	50·93	24	50·52	24	50·72		
,,	6	7	54	8	10	A. and G. P. M.	24	51·06	24	51·90	24	51·48		
,,	7	14	7	14	23	G. P. M. and A.	24	50·61	24	51·10	24	50·85		
,,	9	11	10	11	26	A. and G. P. M.	24	51·40	24	51·43	24	51·41		
,,	11	11	20	11	35	A. and G. P. M.	24	50·93	24	51·49	24	51·21		
,,	13	8	25	8	39	G. P. M. and A.	24	52·81	24	52·68	24	52·74		
,,	14	14	18	14	34	G. P. M. and A.	24	52·70	24	52·39	24	52·54	24	52·01
,,	16	11	37	11	53	G. P. M. and A.	24	51·28	24	50·54	24	50·91		
,,	20	8	5	8	18	G. P. M. and A.	24	53·45	24	53·95	24	53·70		
,,	21	14	20	14	32	G. P. M. and A.	24	50·76	24	51·18	24	50·97		
,,	23	11	0	11	14	A. and G. P. M.	24	51·32	24	51·77	24	51·54		
,,	25	10	50	11	5	A. and G. P. M.	24	52·58	24	52·95	24	52·76		
,,	27	7	50	8	4	A. and G. P. M.	24	53·84	24	53·78	24	53·81		
,,	28	14	11	14	25	A. and G. P. M.	24	54·06	24	54·81	24	54·43		
MARCH	1	11	0	11	15	A. and G. P. M.	24	50·80	24	50·75	24	50·77		
,,	3	11	2	11	16	A. and G. P. M.	24	50·49	24	50·24	24	50·36		
,,	5	8	45	9	2	A. and G. P. M.	24	55·27	24	54·95	24	55·11		
,,	6	12	10	12	27	G. P. M. and A.	24	53·09	24	53·64	24	53·36		
,,	8	11	12	11	27	G. P. M. and A.	24	52·39	24	52·21	24	52·30		
,,	10	11	8	11	24	A. and G. P. M.	24	51·82	24	51·93	24	51·87		
,,	12	8	3	8	17	G. P. M. and A.	24	53·64	24	52·86	24	53·25		
,,	13	14	25	14	38	A. and G. P. M.	24	53·18	24	53·45	24	53·31		
,,	15	12	8	12	22	A. and G. P. M.	24	53·53	24	53·97	24	53·75	24	52·76
,,	17	11	53	12	12	A. and S.	24	50·56	24	50·74	24	50·65		
,,	19	7	45	8	0	A. and S.	24	51·00	24	51·29	24	51·14		
,,	20	14	40	15	11	A. and S.	24	53·35	24	53·19	24	53·27		
,,	22	10	15	10	31	A. and S.	24	50·86	24	50·13	24	50·49		
,,	24	11	40	11	54	A. and S.	24	53·75	24	53·68	24	53·71		
,,	26	8	2	8	17	A. and S.	24	55·97	24	55·52	24	55·74		
,,	27	14	20	14	34	A. and S.	24	55·20	24	55·23	24	55·21		
,,	31	14	40	14	55	A. and S.	24	52·21	24	53·04	24	52·62		
APRIL	2	8	25	8	39	A. and S.	24	51·63	24	52·08	24	51·85		
,,	3	14	40	14	54	A. and S.	24	52·81	24	52·45	24	52·63		
,,	5	14	47	15	7	A. and S.	24	52·21	24	51·98	24	52·09		
,,	7	11	15	11	30	A. and S.	24	50·74	24	51·26	24	51·00		
,,	9	8	25	8	42	A. and S.	24	52·00	24	51·25	24	51·62		
,,	10	14	45	15	7	A. and S.	24	52·24	24	53·00	24	52·62		
,,	12	11	40	11	57	A. and S.	24	50·86	24	51·61	24	51·23		
,,	14	11	50	12	5	A. and S.	24	50·40	24	51·34	24	50·87		
,,	16	8	5	8	19	S. and A.	24	55·96	24	56·31	24	56·13	24	53·02
,,	17	14	50	15	27	A. and S.	24	56·03	24	56·18	24	56·10		
,,	19	11	20	11	34	A. and S.	24	52·65	24	53·26	24	52·95		
,,	21	10	35	10	52	A. and S.	24	52·43	24	53·26	24	52·84		
,,	23	7	45	8	0	A. and S.	24	54·54	24	54·00	24	54·27		
,,	24	14	55	15	10	A. and S.	24	55·28	24	55·53	24	55·40		
,,	26	11	40	11	54	A. and S.	24	52·61	24	52·75	24	52·68		
,,	28	10	40	10	57	A. and S.	24	51·65	24	51·74	24	51·69		
,,	30	7	45	8	7	A. and S.	24	55·02	24	55·56	24	55·29		

* The monthly and annual means corrected for diurnal variation appear in table VIII.

1920. Date.		Alibag civil time. (0 to 24 hours). At commencement. H.	m.	At conclusion. H.	m.	Observers.	Face of circle. East. °	′	West. °	′	Mean inclination. °	′	*Monthly mean inclination. °	′
MAY	1	14	50	15	2	S. and A.	24	55·94	24	56·30	24	56·12		
,,	3	11	25	11	39	A. and S.	24	53·91	24	53·07	24	53·49		
,,	5	11	40	11	55	A. and S.	24	52·98	24	53·69	24	53·33		
,,	7	7	55	8	12	A. and S.	24	53·61	24	53·67	24	53·64		
,,	8	14	38	14	53	A. and S.	24	54·73	24	55·54	24	55·13		
,,	10	12	30	12	47	A. and S.	24	52·20	24	51·63	24	51·91		
,,	12	11	40	11	55	A. and S.	24	51·82	24	51·77	24	51·79		
,,	14	7	51	8	5	M. D. K. and A.	24	54·41	24	54·55	24	54·48		
,,	15	12	8	12	23	M. D. K. and A.	24	52·76	24	52·19	24	52·47		
,,	17	14	20	14	34	M. D. K. and A.	24	53·81	24	53·79	24	53·80	24	53·37
,,	19	11	53	12	9	S. and M. D. K.	24	53·64	24	53·62	24	53·63		
,,	21	8	35	8	50	M. D. K. and S.	24	52·94	24	53·75	24	53·34		
,,	22	14	30	14	42	S. and M. D. K.	24	53·35	24	52·99	24	53·17		
,,	24	11	33	12	4	S. and M. D. K.	24	51·32	24	51·46	24	51·39		
,,	26	12	22	12	38	S. and M. D. K.	24	53·89	24	53·40	24	53·64		
,,	28	8	12	8	28	S. and M. D. K.	24	52·00	24	52·43	24	52·21		
,,	29	14	18	14	37	S. and M. D. K.	24	53·79	24	54·35	24	54·07		
,,	31	12	4	12	19	S. and M. D. K.	24	53·03	24	53·00	24	53·01		
JUNE	2	12	2	12	19	S. and M. D. K.	24	50·25	24	50·54	24	50·39		
,,	4	7	55	8	9	S. and M. D. K.	24	54·15	24	54·09	24	54·12		
,,	7	11	40	11	55	S. and M. D. K.	24	49·99	24	50·17	24	50·08		
,,	9	12	7	12	24	S. and M. D. K.	24	53·09	24	52·41	24	52·75		
,,	11	8	20	8	38	S. and M. D. K.	24	56·20	24	56·39	24	56·29		
,,	12	14	41	14	54	S. and M. D. K.	24	55·13	24	55·14	24	55·13		
,,	14	11	33	11	47	M. D. K. and S.	24	52·32	24	52·43	24	52·37		
,,	16	12	51	13	4	M. D. K. and S.	24	53·43	24	52·86	24	53·14		
,,	18	8	10	8	26	M. D. K. and S.	24	52·93	24	52·73	24	52·83	24	52·39
,,	19	13	12	13	32	M. D. K. and S.	24	49·75	24	50·32	24	50·03		
,,	21	11	30	11	53	M. D. K. and S.	24	50·45	24	50·79	24	50·62		
,,	23	11	37	11	54	M. D. K. and S.	24	51·12	24	50·80	24	50·96		
,,	25	8	7	8	23	M. D. K. and S.	24	52·65	24	53·14	24	52·89		
,,	26	14	31	14	49	M. D. K. and S.	24	52·57	24	52·94	24	52·75		
,,	28	11	42	12	1	M. D. K. and S.	24	50·88	24	51·43	24	51·15		
,,	30	11	52	12	8	M. D. K. and S.	24	52·47	24	53·06	24	52·76		
JULY	2	8	20	8	36	M. D. K. and S.	24	55·26	24	55·02	24	55·14		
,,	3	14	26	14	40	M. D. K. and S.	24	54·83	24	55·56	24	55·19		
,,	5	12	53	13	11	M. D. K. and S.	24	51·70	24	52·39	24	52·04		
,,	6	15	24	15	39	M. D. K. and S.	24	55·29	24	56·16	24	55·72		
,,	7	11	34	11	49	M. D. K. and S.	24	52·13	24	52·28	24	52·20		
,,	9	7	57	8	12	M. D. K. and S.	24	54·28	24	55·03	24	54·65		
,,	10	14	29	14	52	M. D. K. and S.	24	53·32	24	54·12	24	53·72		
,,	12	11	53	12	9	M. D. K. and S.	24	55·07	24	54·10	24	54·58		
,,	14	11	27	11	52	M. D. K. and S.	24	52·81	24	52·64	24	52·72		
,,	16	8	20	8	37	M. D. K. and S.	24	53·52	24	53·27	24	53·39		
,,	17	13	5	13	22	M. D. K. and S.	24	53·77	24	54·63	24	54·20	24	53·91
,,	19	13	12	13	25	M. D. K. and S.	24	54·36	24	54·64	24	54·50		
,,	20	14	57	15	16	M. D. K. and S.	24	54·28	24	54·53	24	54·40		
,,	21	11	50	12	9	M. D. K. and S.	24	52·65	24	52·96	24	52·80		
,,	23	8	10	8	28	M. D. K. and S.	24	54·93	24	54·30	24	54·61		
,,	24	12	28	12	44	M. D. K. and S.	24	56·11	24	55·88	24	55·99		
,,	26	12	50	13	7	M. D. K. and S.	24	53·74	24	54·37	24	54·05		
,,	28	11	32	11	46	M. D. K. and S.	24	52·77	24	53·53	24	53·15		
,,	30	8	24	8	41	M. D. K. and S.	24	52·48	24	52·30	24	52·39		
,,	31	12	45	13	2	M. D. K. and S.	24	53·18	24	52·40	24	52·79		
AUG.	2	11	45	12	2	M. D. K. and S.	24	51·98	24	52·11	24	52·04		
,,	5	12	29	12	46	M. D. K. and S.	24	51·00	24	51·40	24	51·20		
,,	6	8	30	8	47	M. D. K. and S.	24	51·12	24	50·29	24	50·70		
,,	7	13	1	13	15	M. D. K. and S.	24	52·71	24	53·32	24	53·01		
,,	9	11	52	12	9	M. D. K. and S.	24	55·70	24	55·33	24	55·51		
,,	11	14	32	14	49	M. D. K. and S.	24	53·70	24	54·33	24	54·01		
,,	13	8	58	9	12	M. D. K. and S.	24	54·72	24	54·90	24	54·81		
,,	14	14	53	15	29	M. D. K. and S.	24	54·95	24	55·18	24	55·06		
,,	16	11	31	11	48	M. D. K. and S.	24	54·72	24	54·25	24	54·48	24	53·43
,,	18	12	20	12	46	M. D. K. and S.	24	52·80	24	52·21	24	52·50		
,,	20	8	22	8	38	M. D. K. and S.	24	53·85	24	54·04	24	53·94		
,,	21	14	38	14	53	M. D. K. and S.	24	54·21	24	54·08	24	54·14		
,,	23	11	35	11	48	M. D. K. and S.	24	54·01	24	53·43	24	53·72		
,,	25	11	50	12	5	M. D. K. and S.	24	53·48	24	52·76	24	53·12		
,,	27	8	30	8	46	M. D. K. and S.	24	53·03	24	52·46	24	52·74		
,,	28	14	20	14	39	M. D. K. and S.	24	54·23	24	54·10	24	54·16		
,,	30	11	29	11	46	M. D. K. and S.	24	53·45	24	52·87	24	53·16		
SEPT.	1	11	30	11	47	M. D. K. and S.	24	51·77	24	51·79	24	51·78		
,,	3	8	27	8	47	M. D. K. and S.	24	52·78	24	53·31	24	53·04		
,,	4	14	44	14	58	M. D. K. and S.	24	55·13	24	54·86	24	54·99		
,,	8	11	22	11	47	M. D. K. and S.	24	51·66	24	52·60	24	52·13		
,,	10	8	50	9	3	M. D. K. and S.	24	55·93	24	55·58	24	55·75		

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1920. Date.		Alibag civil time. (0 to 24 hours). At commencement. H.	m.	At conclusion. H.	m.	Observers.	Face of circle. East. °	′	West. °	′	Mean inclination. °	′	*Monthly mean inclination. °	′
Sept.	11	14	5	14	23	M. D. K. and S.	24	56·49	24	56·29	24	56·39		
,,	13	11	30	11	46	M. D. K. and S.	24	53·21	24	53·45	24	53·33		
,,	15	11	26	11	42	M. D. K. and S.	24	52·94	24	53·26	24	53·10		
,,	17	8	32	8	47	M. D. K. and S.	24	55·24	24	54·92	24	55·08	24	53·95
,,	18	12	38	12	55	M. D. K. and S.	24	53·05	24	53·34	24	53·19		
,,	20	11	35	11	53	M. D. K. and S.	24	53·95	24	53·65	24	53·80		
,,	22	11	30	11	45	M. D. K. and S.	24	50·91	24	50·91	24	50·91		
,,	24	8	34	8	48	M. D. K. and S.	24	55·93	24	56·26	24	56·09		
,,	25	14	20	14	34	M. D. K. and S.	24	55·22	24	54·99	24	55·10		
,,	27	11	28	11	50	M. D. K. and S.	24	52·86	24	51·97	24	52·41		
,,	29	11	14	11	33	M. D. K. and S.	24	55·93	24	56·17	24	56·05		
Oct.	1	8	15	8	29	M. D. K. and S.	24	56·25	24	57·03	24	56·64		
,,	2	14	30	14	49	M. D. K. and S.	24	55·15	24	55·30	24	55·22		
,,	4	14	30	14	47	M. D. K. and S.	24	54·79	24	55·31	24	55·05		
,,	6	11	22	11	42	M. D. K. and S.	24	52·78	24	52·92	24	52·85		
,,	8	15	15	15	28	M. D. K. and S.	24	57·92	24	57·94	24	57·93		
,,	9	14	32	14	46	M. D. K. and S.	24	56·00	24	55·78	24	55·89		
,,	11	11	22	11	37	M. D. K. and S.	24	55·45	24	56·25	24	55·85		
,,	12	16	40	16	55	M. D. K. and S.	24	56·75	24	57·17	24	56·96		
,,	13	11	22	11	37	M. D. K. and S.	24	54·82	24	53·89	24	54·35		
,,	15	8	25	8	48	M. D. K. and S.	24	55·24	24	55·71	24	55·47	24	55·53
,,	15	14	22	14	38	M. D. K. and S.	24	56·72	24	56·57	24	56·64		
,,	16	13	17	13	33	M. D. K. and S.	24	56·17	24	56·78	24	56·47		
,,	18	13	8	13	24	M. D. K. and S.	24	55·88	24	55·60	24	55·74		
,,	20	12	38	12	54	M. D. K. and S.	24	54·83	24	55·50	24	55·16		
,,	22	8	55	9	14	M. D. K. and S.	24	54·12	24	53·95	24	54·03		
,,	23	14	26	14	44	M. D. K. and S.	24	55·47	24	56·05	24	55·76		
,,	25	11	37	11	52	M. D. K. and S.	24	53·42	24	54·06	24	53·74		
,,	27	11	57	12	12	M. D. K. and S.	24	55·09	24	55·54	24	55·31		
,,	29	8	38	8	52	M. D. K. and S.	24	55·17	24	55·15	24	55·16		
,,	30	14	20	14	36	M. D. K. and S.	24	56·29	24	56·29	24	56·29		
Nov.	1	11	38	11	54	M. D. K. and S.	24	55·63	24	55·81	24	55·72		
,,	3	11	39	11	53	M. D. K. and S.	24	55·02	24	55·41	24	55·21		
,,	5	8	47	9	2	M. D. K. and S.	24	56·24	24	55·63	24	55·93		
,,	6	14	23	14	38	M. D. K. and S.	24	57·90	24	58·20	24	58·05		
,,	8	11	56	12	10	M. D. K. and S.	24	56·40	24	55·57	24	55·98		
,,	12	8	35	8	49	M. D. K. and S.	24	54·04	24	54·82	24	54·43		
,,	13	14	18	14	36	M. D. K. and S.	24	56·30	24	55·96	24	56·13		
,,	15	14	29	14	44	M. D. K. and S.	24	55·42	24	56·09	24	55·75		
,,	17	11	22	11	37	M. D. K. and S.	24	53·89	24	54·42	24	54·15	24	55·67
,,	19	8	42	8	57	M. D. K. and S.	24	57·36	24	56·53	24	56·94		
,,	20	14	19	14	37	M. D. K. and S.	24	54·62	24	54·19	24	54·40		
,,	22	11	42	12	0	M. D. K. and S.	24	54·78	24	55·15	24	54·96		
,,	24	11	32	11	46	M. D. K. and S.	24	55·28	24	56·09	24	55·68		
,,	26	8	30	8	45	M. D. K. and S.	24	54·74	24	55·52	24	55·13		
,,	27	14	28	14	43	M. D. K. and S.	24	56·79	24	57·57	24	57·18		
,,	29	11	33	11	48	M. D. K. and S.	24	54·81	24	55·33	24	55·07		
Dec.	1	11	43	11	57	M. D. K. and S.	24	54·54	24	55·44	24	54·99		
,,	3	8	18	8	34	M. D. K. and S.	24	55·28	24	55·73	24	55·50		
,,	4	14	21	14	38	M. D. K. and S.	24	56·38	24	56·85	24	56·61		
,,	6	12	3	12	19	M. D. K. and S.	24	55·90	24	55·77	24	55·83		
,,	8	11	36	11	51	M. D. K. and S.	24	54·88	24	55·07	24	54·97		
,,	10	8	48	9	8	M. D. K. and S.	24	55·94	24	56·07	24	56·00		
,,	11	14	37	14	51	M. D. K. and S.	24	55·95	24	56·23	24	56·09		
,,	13	11	45	12	0	M. D. K. and S.	24	54·28	24	54·92	24	54·60		
,,	15	11	50	12	4	M. D. K. and S.	24	54·55	24	54·41	24	54·48	24	55·56
,,	17	8	41	8	55	M. D. K. and S.	24	55·23	24	55·25	24	55·24		
,,	18	14	23	14	37	M. D. K. and S.	24	56·58	24	56·68	24	56·63		
,,	20	11	56	12	10	M. D. K. and S.	24	53·79	24	53·63	24	53·71		
,,	22	12	5	12	19	M. D. K. and S.	24	55·76	24	56·20	24	55·98		
,,	24	8	35	8	50	M. D. K. and S.	24	55·51	24	55·74	24	55·62		
,,	27	11	47	12	5	M. D. K. and S.	24	55·93	24	56·18	24	56·05		
,,	29	12	15	12	34	M. D. K. and S.	24	55·71	24	56·13	24	55·92		
,,	31	7	26	7	40	M. D. K. and S.	24	56·22	24	56·40	24	56·31		

The mean * observed inclination for the year 1920 = 24 ° 53·57 ′

* The monthly and annual means corrected for diurnal variation appear in table VIII.

Absolute Magnetic Observations, Alibag—Table IIIb.

OBSERVATION OF INCLINATION, 1920.

Taken with inductor no. 108 and galvanometer no. 108-A by Otto Toepfer and Sons.

1920. Date.	Alibag civil time. (0 to 24 hours). At commencement.		At conclusion.		Observers.	Face of circle. East.			West.			Mean inclination.			* Monthly mean inclination.	
	H.	m.	H.	m.		°	′		°	′		°	′		°	′
JAN. 2	7	0	7	14	A. and G. P. M.	24	52·93		24	52·87		24	52·90			
,, 2	12	26	12	42	A. and G. P. M.	24	52·38		24	52·02		24	52·20			
,, 6	14	20	14	37	G. P. M. and A.	24	50·99		24	51·60		24	51·29			
,, 9	7	35	7	52	G. P. M. and A.	24	52·73		24	53·58		24	53·15			
,, 9	14	53	15	11	G. P. M. and A.	24	52·38		24	52·07		24	52·22			
,, 13	14	10	14	27	A. and G. P. M.	24	51·61		24	51·83		24	51·72			
,, 16	7	20	7	37	A. and G. P. M.	24	52·57		24	53·29		24	52·93			
,, 16	14	15	14	32	A. and G. P. M.	24	51·52		24	52·33		24	51·92		24	52·36
,, 20	11	40	12	2	A. and G. P. M.	24	51·77		24	52·36		24	52·06			
,, 23	7	42	7	58	A. and G. P. M.	24	53·34		24	53·61		24	53·47			
,, 23	14	5	14	21	A. and G. P. M.	24	51·79		24	52·30		24	52·04			
,, 27	14	14	14	31	A. and G. P. M.	24	52·06		24	52·16		24	52·11			
,, 30	7	21	7	38	A. and G. P. M.	24	53·40		24	53·05		24	53·22			
,, 30	14	17	14	31	A. and G. P. M.	24	51·56		24	51·99		24	51·77			
FEB. 3	14	8	14	24	A. and G. P. M.	24	52·37		24	52·88		24	52·62			
,, 6	7	19	7	34	A. and G. P. M.	24	51·67		24	52·13		24	51·90			
,, 6	14	5	14	20	A. and G. P. M.	24	51·05		24	51·42		24	51·23			
,, 10	13	16	13	31	A. and G. P. M.	24	50·88		24	51·08		24	50·98			
,, 13	7	45	8	1	A. and G. P. M.	24	53·24		24	53·45		24	53·34			
,, 13	14	7	14	26	A. and G. P. M.	24	51·17		24	51·43		24	51·30			
,, 17	14	21	14	38	A. and G. P. M.	24	53·36		24	53·34		24	53·35		24	52·17
,, 20	7	9	7	30	A. and G. P. M.	24	53·35		24	53·33		24	53·34			
,, 20	14	9	14	26	A. and G. P. M.	24	51·34		24	51·78		24	51·56			
,, 24	14	9	14	26	A. and G. P. M.	24	50·31		24	50·94		24	50·62			
,, 27	7	17	7	32	A. and G. P. M.	24	53·56		24	53·63		24	53·59			
,, 27	14	10	14	27	A. and G. P. M.	24	51·89		24	52·54		24	52·21			
MARCH 2	14	10	14	26	A. and G. P. M.	24	51·88		24	52·07		24	51·97			
,, 5	7	46	8	2	A. and G. P. M.	24	54·29		24	53·35		24	53·82			
,, 9	11	52	12	11	A. and G. P. M.	24	51·67		24	52·33		24	52·00			
,, 12	7	21	7	39	A. and G. P. M.	24	53·76		24	53·24		24	53·50			
,, 12	14	15	14	33	A. and G. P. M.	24	52·39		24	52·97		24	52·68			
,, 16	13	20	13	37	A. and S.	24	55·58		24	54·90		24	55·24			
,, 19	7	13	7	27	A. and S.	24	54·54		24	54·48		24	54·51		24	54·40
,, 19	13	32	13	47	A. and S.	24	53·31		24	53·60		24	53·45			
,, 23	15	20	15	38	A. and S.	25	1·35		25	3·75		25	2·55			
,, 26	7	30	7	44	A. and S.	24	56·96		24	56·76		24	56·86			
,, 26	14	55	15	10	A. and S.	24	53·53		24	53·34		24	53·25			
,, 30	15	25	15	42	A. and S.	24	53·23		24	52·62		24	52·92			
APRIL 2	7	38	8	17	A. and S.	24	54·17		24	54·24		24	54·20			
,, 2	14	40	14	57	A. and S.	24	52·45		24	51·76		24	52·10			
,, 6	10	40	10	57	A. and S.	24	52·31		24	51·89		24	52·10			
,, 9	7	28	7	52	A. and S.	24	54·29		24	53·52		24	53·90			
,, 9	14	35	14	55	A. and S.	24	52·14		24	52·57		24	52·35			
,, 13	14	50	15	6	A. and S.	24	54·20		24	53·61		24	53·90			
,, 16	7	45	7	59	A. and S.	24	56·97		24	56·15		24	56·56		24	54·49
,, 16	14	35	14	52	A. and S.	24	55·54		24	55·26		24	55·40			
,, 20	14	45	15	7	A. and S.	24	56·34		24	56·98		24	56·66			
,, 23	7	15	7	29	A. and S.	24	55·39		24	54·78		24	55·08			
,, 23	15	2	15	17	A. and S.	24	53·81		24	53·18		24	53·49			
,, 27	14	30	14	47	A. and S.	24	54·91		24	55·40		24	55·15			
,, 30	6	55	7	17	A. and S.	24	56·53		24	55·72		24	56·12			
30	14	30	14	47	A. and S.	24	56·36		24	55·41		24	55·88			
MAY 4	14	25	14	42	A. and S.	24	52·37		24	52·59		24	52·48			
,, 7	7	20	7	34	A. and S.	24	54·35		24	54·34		24	54·34			
,, 7	14	55	15	10	A. and S.	24	53·84		24	53·68		24	53·76			
,, 11	14	30	14	45	A. and S.	24	54·47		24	53·70		24	54·08			
,, 14	7	22	7	35	A. and M. D. K.	24	55·20		24	55·58		24	55·39			
,, 14	14	22	14	37	A. and M. D. K.	24	54·95		24	55·01		24	54·98		24	53·90
,, 18	11	35	11	49	A. and M. D. K.	24	54·77		24	54·14		24	54·45			
,, 21	7	34	7	59	M. D. K. and S.	24	54·41		24	53·62		24	54·01			
,, 21	12	48	13	11	M. D. K. and S.	24	52·68		24	52·69		24	52·68			
,, 25	12	56	13	13	S. and M. D. K.	24	53·57		24	53·00		24	53·28			
,, 28	7	17	7	49	S. and M. D. K.	24	54·14		24	54·09		24	54·11			
,, 28	12	47	13	4	S. and M. D. K.	24	53·31		24	53·23		24	53·27			

* The monthly and annual means corrected for diurnal variation appear in table VIII *a*.

1920. Date.		Alibag civil time. (0 to 24 hours.) At commencement. H.	m.	At conclusion. H.	m.	Observers.	Face of circle. East. °	′	West. °	′	Mean inclination. °	′	* Monthly mean inclination. °	′
JUNE	1	14	27	14	47	S. and M. D. K.	24	52·60	24	53·53	24	53·06		
,,	4	7	13	7	31	S. and M. D. K.	24	52·21	24	52·33	24	52·27		
,,	4	12	58	13	13	S. and M. D. K.	24	50·58	24	50·22	24	50·40		
,,	8	12	56	13	14	M. D. K. and S.	24	52·05	24	51·87	24	51·96		
,,	11	7	34	8	0	M. D. K. and S.	24	55·88	24	55·40	24	55·64		
,,	11	13	5	13	24	M. D. K. and S.	24	54·09	24	54·35	24	54·22		
,,	15	12	36	12	50	M. D. K. and S.	24	51·37	24	52·15	24	51·76	24	53·06
,,	18	7	30	7	52	M. D. K. and S.	24	53·91	24	54·63	24	54·27		
,,	18	14	30	14	47	M. D. K. and S.	24	54·09	24	54·96	24	54·52		
,,	22	11	35	11	52	M. D. K. and S.	24	52·23	24	52·35	24	52·29		
,,	25	7	37	7	55	M. D. K. and S.	24	54·26	24	54·09	24	54·17		
,,	25	12	54	13	14	M. D. K. and S.	24	52·92	24	52·45	24	52·68		
,,	29	12	52	13	9	M. D. K. and S.	24	52·23	24	52·78	24	52·50		
JULY	2	7	46	8	3	M. D. K. and S.	24	54·52	24	54·94	24	54·73		
,,	2	12	17	12	34	M. D. K. and S.	24	54·31	24	53·58	24	53·94		
,,	9	7	23	7	39	M. D. K. and S.	24	55·22	24	54·54	24	54·88		
,,	9	12	32	12	52	M. D. K. and S.	24	52·48	24	52·79	24	52·63		
,,	13	12	52	13	7	M. D. K. and S.	24	53·23	24	53·04	24	53·13		
,,	16	7	42	7	59	M. D. K. and S.	24	53·18	24	52·89	24	53·03	24	53·66
,,	16	14	26	14	43	M. D. K. and S.	24	53·28	24	53·99	24	53·63		
,,	23	7	28	7	42	M. D. K. and S.	24	53·91	24	54·72	24	54·31		
,,	23	12	16	12	33	M. D. K. and S.	24	51·49	24	51·65	24	51·57		
,,	27	14	17	14	37	M. D. K. and S.	24	53·83	24	54·27	24	54·05		
,,	30	7	47	8	4	M. D. K. and S.	24	53·91	24	54·35	24	54·13		
,,	30	14	23	14	38	M. D. K. and S.	24	54·14	24	53·62	24	53·88		
AUG.	3	14	40	14	56	M. D. K. and S.	24	53·54	24	53·57	24	53·55		
,,	6	7	44	8	7	M. D. K. and S.	24	53·77	24	53·66	24	53·71		
,,	13	8	20	8	55	M. D. K. and S.	24	57·03	24	56·26	24	56·64		
,,	13	14	40	15	12	M. D. K. and S.	24	57·04	24	56·98	24	57·01		
,,	17	14	42	15	5	M. D. K. and S.	24	56·23	24	56·45	24	56·34		
,,	20	7	54	8	9	M. D. K. and S.	24	55·92	24	55·97	24	55·94	24	55·05
,,	20	14	45	15	4	M. D. K. and S.	24	55·42	24	55·29	24	55·35		
,,	24	13	58	14	22	M. D. K. and S.	24	55·15	24	54·85	24	55·00		
,,	27	7	57	8	22	M. D. K. and S.	24	54·48	24	54·80	24	54·64		
,,	27	14	28	15	9	M. D. K. and S.	24	56·37	24	56·02	24	56·19		
,,	31	14	28	14	55	M. D. K. and S.	24	56·14	24	56·29	24	56·21		
SEP.	3	7	34	7	58	M. D. K. and S.	24	56·75	24	56·05	24	56·40		
,,	3	12	42	13	19	M. D. K. and S.	24	54·92	24	54·76	24	54·84		
,,	7	12	50	13	24	M. D. K. and S.	24	52·71	24	52·55	24	52·63		
,,	10	8	5	8	28	M. D. K. and S.	24	57·15	24	57·01	24	57·08		
,,	10	14	22	14	46	M. D. K. and S.	24	56·30	24	57·24	24	56·77		
,,	14	14	34	14	55	M. D. K. and S.	24	55·11	24	55·86	24	55·48	24	56·28
,,	17	7	45	8	12	M. D. K. and S.	24	57·27	24	57·17	24	57·22		
,,	17	14	25	14	59	M. D. K. and S.	24	56·20	24	57·15	24	56·67		
,,	21	12	33	12	51	M. D. K. and S.	24	56·54	24	56·11	24	56·32		
,,	24	7	53	8	14	M. D. K. and S.	25	0·03	24	59·20	24	59·61		
,,	24	12	31	12	53	M. D. K. and S.	24	55·62	24	55·90	24	55·76		
,,	28	12	46	13	4	M. D. K. and S.	24	56·21	24	56·96	24	56·58		
OCT.	1	7	43	8	0	M. D. K. and S.	25	0·55	25	0·49	25	0·52		
,,	1	14	30	14	48	M. D. K. and S.	24	58·95	24	59·54	24	59·24		
,,	5	14	37	14	56	M. D. K. and S.	24	58·30	24	58·83	24	58·56		
,,	8	8	4	8	21	M. D. K. and S.	24	57·83	24	57·46	24	57·64		
,,	8	14	29	14	45	M. D. K. and S.	24	57·14	24	57·46	24	57·30		
,,	19	14	40	14	56	M. D. K. and S.	24	57·29	24	56·87	24	57·08	24	57·73
,,	22	8	16	8	34	M. D. K. and S.	24	55·63	24	56·09	24	55·86		
,,	26	14	15	14	32	M. D. K. and S.	24	55·59	24	55·81	24	55·70		
,,	29	8	3	8	19	M. D. K. and S.	24	57·14	24	57·19	24	57·16		
,,	29	14	24	14	40	M. D. K. and S.	24	58·36	24	58·15	24	58·25		
NOV.	2	14	16	14	35	M. D. K. and S.	24	58·68	24	58·47	24	58·57		
,,	5	8	13	8	29	M. D. K. and S.	24	58·02	24	57·81	24	57·91		
,,	5	14	14	14	29	M. D. K. and S.	24	57·26	24	56·86	24	57·06		
,,	12	8	2	8	18	M. D. K. and S.	24	55·85	24	55·95	24	55·90		
,,	12	14	28	14	43	M. D. K. and S.	24	57·24	24	56·31	24	56·77		
,,	16	14	14	14	32	M. D. K. and S.	24	56·99	24	57·72	24	57·35	24	56·94
,,	19	8	8	8	26	M. D. K. and S.	24	58·25	24	57·61	24	57·93		
,,	19	14	15	14	32	M. D. K. and S.	24	56·08	24	56·30	24	56·19		
,,	23	14	20	14	38	M. D. K. and S.	24	55·72	24	55·67	24	55·69		
,,	26	7	57	8	12	M. D. K. and S.	24	55·89	24	56·30	24	56·09		
,,	26	14	19	14	35	M. D. K. and S.	24	56·54	24	56·43	24	56·48		
,,	30	14	47	15	4	M. D. K. and S.	24	56·99	24	57·68	24	57·33		

* The monthly and annual means corrected for diurnal variation appear in table VIII*a*.

1920. Date.		Alibag civil time. (0 to 24 hours.) At commencement. H.	m.	At conclusion. H.	m.	Observers.	Face of circle. East. °	′	West. °	′	Mean inclination. °	′	* Monthly mean inclination. °	′
DEC.	3	7	48	8	3	M. D. K. and S.	24	57·11	24	57·80	24	57·45		
,,	3	14	28	14	44	M. D. K. and S.	24	56·41	24	57·32	24	56·86		
,,	7	14	19	14	35	M. D. K. and S.	24	58·21	24	57·86	24	58·03		
,,	10	8	11	8	27	M. D. K. and S.	24	57·96	24	57·60	24	57·78		
,,	10	14	15	14	31	M. D. K. and S.	24	58·39	24	58·11	24	58·25		
,,	14	14	40	14	55	M. D. K. and S.	24	58·62	24	58·69	24	58·65		
,,	17	8	15	8	29	M. D. K. and S.	24	58·45	24	58·11	24	58·28		
,,	17	14	33	14	47	M. D. K. and S.	24	56·60	24	57·39	24	56·99	24	57·59
,,	21	14	36	14	50	M. D. K. and S.	24	57·28	24	57·64	24	57·46		
,,	24	8	3	8	19	M. D. K. and S.	24	55·94	24	56·21	24	56·07		
,,	24	14	17	14	32	M. D. K. and S.	24	56·77	24	57·38	24	57·07		
,,	28	14	21	14	37	M. D. K. and S.	24	58·24	24	58·64	24	58·44		
,,	31	6	56	7	10	M. D. K. and S.	24	58·37	24	58·30	24	58·33		
,,	31	12	2	12	17	M. D. K. and S.	24	56·51	24	56·57	24	56·54		

The mean * observed inclination for the year 1920 = 24 ° 54·80 ′

* The monthly and annual means corrected for diurnal variation appear in table VIII*a*.

TABLE IV*a*.—*Base line values of the Horizontal Force Magnetograph derived*

36000 γ +

1916.	January.			February.			March.			April.			May.			June.		
Date.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 ..		584			586		589	591	−2		597			601			603	
2 ..		584		585	586	−1		592			597			601			603	
3 ..		584			586			592			598		601	601	0		603	
4 ..		584			586			592			598			601			603	
5 ..	589	584	+5		586			593		600	598	+2		601			604	
6 ..		584			586			593			598			602			604	
7 ..		584			587			593			598			602		601	604	−3
8 ..		585			587		593	593	0		598			602			604	
9 ..		585		585	587	−2		593			599			602			604	
10 ..		585			587			594			599		599	602	−3		603	
11 ..		585			587			594			599			602			603	
12 ..	587	585	+2		587			594		598	599	−1		602			603	
13 ..		586			587			594			599			602			603	
14 ..		586			587			594			599			602		603	603	0
15 ..		586			587			594			600			602			603	
16 ..		586		585	587	−2	599	594	+5		600			603			603	
17 ..		587			587			595			600		603	603	0		603	
18 ..		587			588			595			600			603			603	
19 ..	586	587	−1		588			595		601	600	+1		603			603	
20 ..		587			588			596			600			603			603	
21 ..		587			588			596			600			603		605	604	+1
22 ..		587			589		595	596	−1		600			603			604	
23 ..		587		591	589	+2		596			600			603			604	
24 ..		586			589			597			600		607	603	+4		605	
25 ..		586			590			597			600			603			605	
26 ..	587	586	+1		590			597		601	600	+1		603			605	
27 ..		586			590			597			600			603			605	
28 ..		586			591			597			601			603		605	606	−1
29 ..		586			591		595	597	−2		601			603			606	
30 ..		586						597			601			603			606	
31 ..		586						597					603	603	0			
Means ..	587	586	±2	587	588	±2	594	595	±2	600	599	±1	603	602	±1	603	604	±1

Base line values are derived by converting the corresponding mean ordinates in table I*a* in C. G. S. unit (Unity=1γ) and subtracting the adopted temperature coefficient 3·6γ for 1°F. they are further reduced to a uniform temperature of 85°F. to make the series comparable from

Observed base line values for each day represent the result of a double set of vibration and deflection observations. The calculated values in intermediate days being obtained by simple interpolation.

The departures of the observed from the calculated values in column 3 represent in the main the probable errors of the absolute

from Observations of Horizontal Force with Instrument No. 7.

July.			August.			September.			October.			November.			December.		
Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.
1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
	606			603			605			608		615	613	+2		613	
	606		603	603	0		605			609			613			613	
	606			603			605			609			613			613	
	606			603			605		605	609	−4		613			614	
605	606	−1		603			605			609			613			614	
	606			603		603	605	−2		609			612		609	614	−5
	606			603			605			609			612			614	
	606			603			605			610		613	612	+1		615	
	606		596	603	−7		605			610			612			615	
	606			603			605			610			612			615	
	606			602			606		609	610	−1		613			615	
611	606	+5		602			606			611			613			615	
	606			602		613	606	+7		611			613		615	615	0
	606			602			606			611			613			615	
	606			602			606			611		608	613	−5		614	
	606		604	602	+2		606			611			613			614	
	606			602			606			611			613			614	
	606			602			607		617	612	+5		613			613	
603	606	−3		602			607			612			612		619	613	+6
	605			601		605	607	−2		612			612			613	
	605			601			607			612			612			613	
	605			601			607			613		611	612	−1		614	
	605		605	601	+4		607			613			612			614	
	605			602			607		613	613	0		612			614	
	604			602			608			613			612			615	
605	604	+1		603			608			613			612			615	
	604			603		608	608	0		613			612			615	
	604			604			608			613			612		615	615	0
	603			604			608			613			612			615	
	603		600	605	−5		608			613		618	613	+5		615	
	603			605						613						615	
606	605	±3	602	603	±4	607	606	±3	611	611	±3	613	612	±3	615	614	±3

converted ordinates from the mean observed absolute horizontal force. From the corresponding temperatures in table Ia and by means of the month to month and year to year.

column 2 are derived by taking overlapping means of 5 successive double sets of observations and reducing them to the proper epoch, values for

determinations.

TABLE IVb.—*Base line values of the Horizontal Force Magnetograph derived*

36000γ +

1917.	January.			February.			March.			April.			May.			June.		
Date.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated	Observed less calculated.	Observed.	Calculated.	Observed less calculated.
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 ..		615			616			624			626			629			635	
2 ..		615			616			625			625		626	629	−3		635	
3 ..	607	615	−8		617			625			625			630			635	
4 ..		615			617			625		627	625	+2		630			635	
5 ..		615			617			625			625			630			635	
6 ..		614			618			626			626			630		634	635	−1
7 ..		614		621	618	+3	624	626	−2		626			630			635	
8 ..		614			618			626			626			631			635	
9 ..		614			619			626			627		625	631	−6		635	
10 ..	621	613	+8		619			626			627			631			635	
11 ..		614			619			625		628	627	+1		631			635	
12 ..		614			620			625			627			631			635	
13 ..		614			620			625			628			631		635	635	0
14 ..		614		615	621	−6	631	625	+6		628			631			635	
15 ..		614			621			625			628			631			635	
16 ..		614			621			625			628		633	631	+2		636	
17 ..	613	614	−1		621			625			628			631			636	
18 ..		615			621			625		626	629	−3		631			636	
19 ..		615			621			625			629			631			636	
20 ..		615			622			625			629			632		633	636	−3
21 ..		616		625	622	+3	626	625	+1		629			632			636	
22 ..		616			622			626			628			632			636	
23 ..		617			622			626			628		633	632	+1		636	
24 ..	611	617	−6		623			626			628			633			636	
25 ..		617			623			626		637	628	+9		633			636	
26 ..		617			623			626			629			633			636	
27 ..		616			624			626			629			634		635	636	−1
28 ..		616		625	624	+1	619	626	−7		629			634			636	
29 ..		616						626			629			634			636	
30 ..		616						626			629		637	635	+2		636	
31 ..	618	616	+2					626						635				
Means ..	614	615	±5	621	620	±3	625	625	±4	629	627	±4	631	632	±3	634	635	±1

from Observations of Horizontal Force with Instrument No. 7.

July.			August.			September.			October.			November.			December.		
Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.
1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
	636		630	632	−2		635			637			641			639	
	636			632			636			637			641			639	
	636			632			636		635	637	−2		641			639	
643	636	+7		632			636			637			641			638	
	636			632		631	636	−5		637			641		644	638	+6
	636			632			636			637			641			638	
	636			632			636			637		637	642	−5		638	
	635		629	632	−3		636			638			641			639	
	635			633			636			638			641			639	
	635			633			636		640	638	+2		641			639	
631	635	−4		633			636			638			641			639	
	635			633		634	635	−1		639			641		639	639	0
	635			633			635			639			640			639	
	635			634			635			639			640			640	
	635		633	634	−1		635			639		643	640	+3		640	
	634			634			635			639			640			640	
	634			634			635		635	640	−5		640			641	
637	634	+3		634			635			640			640			641	
	634			634		637	635	+2		640			640		631	641	−10
	633			634			635			640			640			641	
	633			634			635			640		641	640	+1		641	
	633		639	634	+5		635			640			640			641	
	632			634			636			640			640			641	
	632			635			636		644	640	+4		640			641	
629	631	−2		635			636			640			640			640	
	631			635		637	637	0		640			640		645	640	+5
	631			635			637			640			640			641	
	631			635			637			640		637	640	−3		641	
	632		638	635	+3		637			641			640			641	
	632			635			637			641			640			641	
	632			635					645	641	+4					641	
635	634	±4	634	634	±3	635	636	±2	640	639	±3	639	640	±3	640	640	±5

TABLE IVc—*Base line values of the Horizontal Force Magnetograph derived*

36000γ +

1918.	January.			February.			March.			April.			May.			June.		
Date.	Observed.	Calculated	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 ..		641			646			651			658		657	660	−3		664	
2 ..	646	641	+5		647			651			658			660			663	
3 ..		642			647			652		656	658	−2		660			663	
4 ..		642			647			652			658			660			663	
5 ..		643			647			652			658			661		657	663	−6
6 ..		643		647	647	0	648	652	−4		658			661			663	
7 ..		644			647			653			658			661			663	
8 ..		644			647			653			658		663	661	+2		664	
9 ..	639	645	−6		648			653			659			661			664	
10 ..		645			648			654		663	659	+4		662			664	
11 ..		645			648			654			658			662			664	
12 ..		645			648			654			658			663		663	664	−1
13 ..		645		648	649	−1	651	655	−4		658			663			664	
14 ..		645			649			655			658			664			663	
15 ..		645			649			655			658		663	664	−1		663	
16 ..	645	644	+1		649			655			658			664			662	
17 ..		644			649			655		656	658	−2		664			662	
18 ..		644			649			654			658			644			661	
19 ..		644			649			654			659			664		659	661	−2
20 ..		645		647	650	−3	657	654	+3		659			664			661	
21 ..		645			650			655			659			664			661	
22 ..		645			650			655			659		663	664	−1		661	
23 ..	649	645	+4		650			656			659			664			661	
24 ..		645			650			656		658	659	−1		664			661	
25 ..		645			650			656			659			664			661	
26 ..		645			651			657			659			664		669	661	+8
27 ..		645		658	651	+7	659	657	+2		659			664			661	
28 ..		646			651			657			660			664			662	
29 ..		646						658			660		673	664	+9		662	
30 ..	643	646	−3					658			660			664			662	
31 ..		646						658						664				
Means ..	644	644	±4	650	649	±3	654	655	±3	658	659	±2	664	663	±3	662	662	±4

from Observations of Horizontal Force with Instrument No. 7.

July.			August.			September.			October.			November.			December.		
Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.
1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
	662			666			661			668			673			667	
	662			666			661		667	669	−2		672			667	
	662			665			661			669			672			667	
657	662	−5		665		664	661	+3		669			671		672	666	+6
	663			665			662			669			671			667	
	663			665			662			669		673	670	+3		667	
	663		665	665	0		663			669			670			667	
	663			664			663			669			669			667	
	664			664			663		663	668	−5		669			667	
659	664	−5		664			663			669			669			667	
	664			663		655	664	−9		669			669		667	667	0
	664			663			664			669			669			667	
	664			663			664			669			669			668	
	664		661	662	−1		665			670			669			669	
	664			662			665			670			669			669	
	664			662			665			670			669			669	
665	664	+1		662			665		673	670	+3		669			670	
	664			662		671	665	+6		670			669		669	671	−2
	665			661			665			671			669			671	
	665			661			665			671		670	669	+1		671	
	665			661			665			671			668			671	
	665		658	661	−3		665			671			668			671	
	665			661			665		669	671	−2		668			671	
669	665	+4		660			665			671			668			671	
	666			660		669	665	+4		672			667			671	
	666			660			666			672			667		673	671	+2
	666			660			666			672			667			671	
	666			659			667			672		654	667	−13		672	
	666		659	660	−1		667			672			667			672	
	666			660			668		678	672	+6		667			672	
670	666	+4		660						672						673	
664	664	±4	661	662	±1	665	664	±5	670	670	±4	666	669	±6	670	669	±3

Table IV*d*.—*Base line values of the Horizontal Force Magnetograph derived*

36000γ +

1919.	January.			February.			March.			April.			May.			June.		
Date.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 ..		673			669			678			682			684			692	
2 ..	671	673	−2		669			678		687	681	+6		684			692	
3 ..		673			669			679			682			684			691	
4 ..		674			669			679			682			685		700	691	+9
5 ..		674		655	669	−14	681	679	+2		682			685			691	
6 ..		674			669			679			682			685			691	
7 ..		675			669			680			682		691	685	+6		691	
8 ..	674	675	−1		669			680			682			685			691	
9 ..		675			669			680			682			686			691	
10 ..		675			669			680		681	682	−1		686			691	
11 ..		675			669			680			682			687		696	691	+5
12 ..		674		667	669	−2	683	681	+2		682			687			691	
13 ..		674			669			681			682			687			691	
14 ..		674			670			681			682		689	688	+1		690	
15 ..	677	674	+3		670			681			682			688			690	
16 ..		673			670			681		679	682	−3		689			689	
17 ..		673			671			682			682			689			689	
18 ..		673			671			682			682			690		683	689	−6
19 ..		672		677	672	+5	679	682	−3		682			690			688	
20 ..		672			672			682			682			691			688	
21 ..		671			673			682			682			691			687	
22 ..	679	671	+8		674			682			682		685	692	−7		687	
23 ..		671			675			682		681	683	−2		692			686	
24 ..		670			675			682			683			692			686	
25 ..		670			676			682			683			692		683	685	−2
26 ..		670		677	677	0	683	682	+1		683			692			685	
27 ..		670			677			682			683			692			685	
28 ..		669			678			682			683		693	693	0		684	
29 ..	667	669	−2					682			684			692			684	
30 ..		669						682		681	684	−3		692			683	
31 ..		669						682						692				
Means ..	674	672	±3	669	671	±5	681	681	±2	682	682	±3	689	689	±3	691	689	±5

from Observations of Horizontal Force with Instrument No. 7.

July.			August.			September.			October.			November.			December.		
Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.
1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
	683			686			689		691	691	0		692			691	
683	683	0		686			689			692			692			691	
	683			687		687	689	−2		692			692		693	691	+2
	683			687			689			692			692			691	
	683			687			689			693		685	692	−7		691	
	684		685	687	−2		689			693			691			691	
	684			687			689			693			691			691	
	684			687			689		693	693	0		691			691	
681	684	−3		687			689			693			690			691	
	684			687		687	689	−2		694			690		693	691	+2
	685			687			689			694			689			691	
	685			687			689			694		687	689	−2		691	
	685			687			689			694			689			691	
	685		684	687	−3		689			694			689			691	
	685			687			689		691	694	−3		689			691	
683	685	−2		687			690			694			689			692	
	685			687		691	690	+1		694			689		695	692	+3
	685			687			690			694			688			692	
	685			687			690			694		689	688	+1		692	
	685		692	687	+5		690			693			689			692	
	685			687			690			693			689			692	
	685			687			690			693			689			692	
691	685	+6		687			691		701	693	+8		689			692	
	685			687		691	691	0		693			689		689	692	−3
	685			687			691			693			689			692	
	685			688			691			693		687	690	−3		692	
	685		687	688	−1		691			692			690			692	
	685			688			691			692			690			692	
	685			688			691		697	692	+5		690			692	
685	686	−1		688			691			692			691			692	
	686			689						692					689	692	−3
685	685	±2	687	687	±3	689	690	±1	695	693	±3	687	690	±3	692	692	±3

TABLE IVe.—*Base line values of the Horizontal Force Magnetograph derived*

36000γ +

1920.	January.			February.			March.			April.			May.			June.		
Date.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 ..		692			692			694		697	698	−1		700			710	
2 ..		692			692			694			698			701		715	710	+5
3 ..		692			692		690	694	−4		698			701			710	
4 ..		692		700	692	+8		695			699			701			710	
5 ..		692			692			695			699		698	702	−4		710	
6 ..		692			692			695			699			702			710	
7 ..	697	692	+5		693			696		698	699	−1		702			710	
8 ..		692			693			696			699			702			709	
9 ..		691			693			697			699			702		716	709	+7
10 ..		691			694		694	697	−3		699			703			709	
11 ..		691		689	694	−5		697			699			703			709	
12 ..		691			694			697			698		704	703	+1		709	
13 ..		691			694			697			698			703			710	
14 ..		691			694			697		693	698	−5		704			710	
15 ..	693	691	+2		694			696			698			704			710	
16 ..		692			695			696			698			705		706	710	−4
17 ..		692		691	695	−4	693	696	−3		698			705			709	
18 ..		692			695			696			698			706			709	
19 ..		693			695			697			698		705	706	−1		709	
20 ..		693			694			697			698			707			708	
21 ..	691	693	−2		694			697		702	698	+4		707			708	
22 ..		693			694			697			698			708			708	
23 ..		693			694			697			698			708		702	707	−5
24 ..		693			694		705	698	+7		699			709			707	
25 ..		693		703	693	+10		698			699			709			706	
26 ..		692			694			698			699		709	710	−1		706	
27 ..		692			694			698			699			710			705	
28 ..	687	692	−5		694			698		699	699	0		710			705	
29 ..		692			694			698			699			710			704	
30 ..		692						698			700			710		710	704	+6
31 ..		692						698						710				
Means ..	692	692	±3	696	694	±7	695	697	±4	698	699	±2	704	705	±2	710	708	±5

from Observations of Horizontal Force with Instrument No. 7.

July.			August.			September.			October.			November.			December.		
Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.
1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
	703			705		708	711	−3		712			713		707	708	−1
	703			706			710			712			713			708	
	703			707			710			712		715	713	+2		708	
	703		706	707	−1		710			712			713			708	
	703			707			709			712			713			708	
	703			707			709		711	713	−2		713			708	
703	703	0		707			709			713			713			708	
	703			708		705	709	−4		713			713		708	708	0
	703			708			709			713			713			708	
	703			708			709			713		714	712	+2		708	
	703			708			709			713			712			709	
	703		702	708	−6		710			713			712			709	
	703			708			710		711	713	−2		712			709	
697	703	−6		708			710			713			711			709	
	703			708		711	710	+1		713			711		707	709	−2
	703			709			711			713			711			710	
	703			709			711			713		709	711	−2		710	
	703		721	709	+12		711			713			711			711	
	703			709			711			713			710			711	
	703			709			711		713	713	0		710			711	
704	703	+1		709			711			713			710			712	
	703			709		713	711	+2		713			710		710	712	−2
	703			709			711			713			709			713	
	703			709			711			713		708	709	−1		713	
	702		707	709	−2		711			714			709			713	
	702			709			712			714			709			714	
	702			709			712		715	714	+1		709			715	
703	702	+1		709			712			714			708			715	
	703			710		715	712	+3		714			708		715	716	−1
	704			710			712			714			708			716	
	704			710						714						716	
702	703	±2	709	707	±5	710	710	±3	713	713	±1	711	711	±2	709	711	±1

TABLE IV*f*.—*Base line values of the Horizontal Force Magnetograph*

36000γ +

1916.					1917.					1918.				
Date.	Observed.	Calculated.	Observed *less* calculated.	Excesses of the differences in column 4 over the mean difference for the period.*	Date.	Observed.	Calculated.	Observed *less* calculated.	Excesses of the differences in column 4 over the mean difference for the period.*	Date.	Observed.	Calculated.	Observed *less* calculated.	Excesses of the differences in column 4 over the mean difference for the period.*
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
	γ	γ	γ	γ		γ	γ	γ	γ		γ	γ	γ	γ
Jan. 3 ..	597	584	+13	+ 2	Jan. 8 ..	631	614	+17	+ 6	Jan. 7 ..	649	644	+ 5	− 9
„ 10 ..	591	585	+ 6	− 5	„ 15 ..	625	614	+11	0	„ 21 ..	663	645	+18	+ 4
„ 17 ..	593	587	+ 6	− 5	„ 22 ..	627	616	+11	0	„ 28 ..	663	646	+17	+ 3
„ 24 ..	585	586	− 1	−12	„ 29 ..	630	616	+14	+ 3					
„ 31 ..	597	586	+11	0						Feb. 4 ..	660	647	+13	− 1
					Feb. 5 ..	629	617	+12	+ 1	„ 11 ..	662	648	+14	0
Feb. 7 ..	589	587	+ 2	− 9	„ 12 ..	632	620	+12	+ 1	„ 18 ..	663	649	+14	0
„ 14 ..	586	587	− 1	−12	„ 19 ..	627	621	+ 6	− 5	„ 25 ..	665	650	+15	+ 1
„ 21 ..	589	588	+ 1	−10	„ 26 ..	636	623	+13	+ 2					
„ 28 ..	595	591	+ 4	− 7						Mar. 4 ..	673	652	+21	+ 7
					Mar. 5 ..	637	625	+12	+ 1	„ 18 ..	673	654	+19	+ 5
Mar. 6 ..	599	593	+ 6	− 5	„ 12 ..	647	625	+22	+11	„ 25 ..	661	656	+ 5	− 9
„ 13 ..	590	594	− 4	−15	„ 19 ..	612	625	−13	+13					
„ 20 ..	581	596	−15	−26	„ 26 ..	591	626	−35	− 9	April 1 ..	668	658	+10	− 4
„ 27 ..	607	597	+10	− 1						„ 8 ..	671	658	+13	− 1
					April 2 ..	597	625	−28	− 2	„ 15 ..	667	658	+ 9	− 5
April 3 ..	613	598	+15	+ 4	„ 9 ..	599	627	−28	− 2	„ 22 ..	676	659	+17	+ 3
„ 10 ..	601	599	+ 2	− 9	„ 16 ..	606	628	−22	+ 4	„ 29 ..	675	660	+15	+ 1
„ 17 ..	607	600	+ 7	− 4	„ 23 ..	608	628	−20	+ 6					
„ 24 ..	615	600	+15	+ 4	„ 30 ..	615	629	−14	+12	May 6 ..	687	661	+26	+12
May 1 ..	613	601	+12	+ 1	May 7 ..	618	630	−12	+14	June 10 ..	677	664	+13	+13
„ 8 ..	623	602	+21	+10	„ 14 ..	624	631	− 7	+19	„ 17 ..	665	662	+ 3	+ 3
„ 15 ..	615	602	+13	+ 2	„ 21 ..	628	632	− 4	+22	„ 24 ..	661	661	0	0
„ 23 ..	619	603	+16	+ 5	„ 28 ..	617	634	−17	+ 9					
„ 29 ..	613	603	+10	− 1										
					June 4 ..	613	635	−22	+ 4	July 1 ..	677	662	+15	+15
June 6 ..	615	604	+11	0	„ 11 ..	616	635	−19	+ 7	„ 9 ..	656	664	− 8	− 8
„ 12 ..	615	603	+12	+ 1	„ 18 ..	617	636	−19	+ 7	„ 15 ..	665	664	+ 1	+ 1
„ 19 ..	617	603	+14	+ 3	„ 25 ..	613	636	−23	+ 3	„ 22 ..	663	665	− 2	− 2
„ 26 ..	614	605	+ 9	− 2						„ 29 ..	657	666	− 9	− 9
					July 2 ..	612	636	−24	+ 2					
July 3 ..	613	606	+ 7	− 4	„ 9 ..	612	635	−23	+ 3	Aug. 5 ..	655	665	−10	−10
„ 10 ..	619	606	+13	+ 2	„ 16 ..	596	634	−38	−12	„ 12 ..	676	663	+13	+13
„ 17 ..	616	606	+10	− 1	„ 23 ..	611	632	−21	+ 5	„ 19 ..	665	661	+ 4	+ 4
„ 24 ..	625	605	+20	+ 9	„ 30 ..	609	632	−23	+ 3	„ 26 ..	671	660	+11	+11
„ 31 ..	615	603	+12	+ 1										
					Aug. 6 ..	593	632	−39	−13	Sept. 2 ..	662	661	+ 1	+ 1
Aug. 7 ..	619	603	+16	+ 5	„ 13 ..	583	633	−50	−24	„ 16 ..	674	665	+ 9	+ 9
„ 14 ..	615	602	+13	+ 2	„ 20 ..	585	634	−49	−23	„ 23 ..	675	665	+10	+10
„ 28 ..	621	604	+17	+ 6	„ 27 ..	581	635	−54	−28	„ 30 ..	674	668	+ 6	+ 6
Sept. 4 ..	621	605	+16	+ 5	Sept. 3 ..	579	636	−57	−31	Oct. 7 ..	669	669	0	0
„ 11 ..	622	606	+16	+ 5	„ 10 ..	591	636	−45	−19	„ 21 ..	673	671	+ 2	+ 2
„ 19 ..	626	607	+19	+ 8	„ 17 ..	597	635	−38	−12	„ 28 ..	661	672	−11	−11
„ 25 ..	627	608	+19	+ 8	„ 24 ..	605	636	−31	− 5					
										Nov. 18 ..	677	669	+ 8	+ 8
Oct. 2 ..	623	609	+14	+ 3	Oct. 1 ..	618	637	−19	+ 7	„ 25 ..	668	667	+ 1	+ 1
„ 9 ..	623	610	+13	+ 2	„ 8 ..	617	638	−21	+ 5					
„ 16 ..	619	611	+ 8	− 3	„ 15 ..	622	639	−17	+ 9	Dec. 2 ..	669	667	+ 2	+ 2
„ 23 ..	629	613	+16	+ 5	„ 23 ..	615	640	−25	+ 1	„ 9 ..	675	667	+ 8	+ 8
„ 30 ..	625	613	+12	+ 1	„ 29 ..	622	641	−19	+ 7	„ 16 ..	675	669	+ 6	+ 6
										„ 23 ..	673	671	+ 2	+ 2
Nov. 6 ..	629	612	+17	+ 6	Nov. 5 ..	615	641	−26	0					
„ 13 ..	631	613	+18	+ 7	„ 12 ..	611	641	−30	− 4					
„ 20 ..	627	612	+15	+ 4	„ 19 ..	619	640	−21	+ 5					
„ 27 ..	623	612	+11	0	„ 26 ..	618	640	−22	+ 4					
					Dec. 3 ..	625	639	−14	+12					
Dec. 4 ..	628	614	+14	+ 3	„ 10 ..	625	639	−14	+12					
„ 11 ..	625	615	+10	− 1										
„ 18 ..	625	613	+12	+ 1	„ 18 ..	645	641	+ 4	−10					
Means ..				± 5					± 8					± 5

*Breaks in the base line values with instrument No. 3 occurred on the 19th March 1917, 18th December 1917, 10th June 1918 and 18th May 18th December 1917 to 6th May 1918, 10th June 1918 to 10th May 1920 and 18th May 1920 to 27th December 1920. Means taken for these five and 36729, 36709 and +19. Excesses in column 5 are obtained by subtracting from the figures in column 4 these means for the respective

Base line values are derived by converting the corresponding mean ordinates in table I*b* in C. G. S. unit (Unity=1γ) and subtracting of the adopted temperature coefficient 3·6γ for 1°F., they are further reduced to a uniform temperature of 85°F to make the series comparable

The calculated values in column 3 are the same as those derived from instrument No. 7 and given in column 2, tables IV*a* to IV*e* and the If the periodic means for column 4 be taken to represent for that period the difference due to (1), the excesses over this mean of the values of the

derived from Observations of Horizontal Force with Instrument No. 3.

1919.					1920.				
Date.	Observed.	Calculated.	Observed *less* calculated.	Excesses of the differences in column 4 over the mean difference for the period.*	Date.	Observed.	Calculated.	Observed *less* calculated.	Excesses of the differences in column 4 over the mean difference for the period.*
1	2	3	4	5	1	2	3	4	5
	γ	γ	γ	γ		γ	γ	γ	γ
Jan. 6 ..	675	674	+1	+1	Jan. 5 ..	699	692	+7	+7
„ 13 ..	668	674	−6	−6	„ 12 ..	685	691	−6	−6
„ 20 ..	685	672	+13	+13	„ 20 ..	695	693	+2	+2
„ 27 ..	682	670	+12	+12	„ 26 ..	682	692	−10	−10
Feb. 3 ..	657	669	−12	−12	Feb. 2 ..	699	692	+7	+7
„ 10 ..	677	669	+8	+8	„ 9 ..	697	693	+4	+4
„ 17 ..	674	671	+3	+3	„ 16 ..	695	695	0	0
„ 24 ..	677	675	+2	+2	„ 23 ..	687	694	−7	−7
Mar. 3 ..	672	679	−7	−7	Mar. 1 ..	690	694	−4	−4
„ 10 ..	671	680	−9	−9	„ 8 ..	697	696	+1	+1
„ 24 ..	675	682	−7	−7	„ 15 ..	699	696	+3	+3
„ 31 ..	671	682	−11	−11	„ 22 ..	693	697	−4	−4
April 7 ..	683	682	+1	+1	April 6 ..	697	699	−2	−2
„ 14 ..	677	682	−5	−5	„ 12 ..	700	698	+2	+2
„ 22 ..	689	682	+7	+7	„ 19 ..	699	698	+1	+1
„ 28 ..	681	683	−2	−2	„ 26 ..	718	699	+19	+19
May 5 ..	697	685	+12	+12	May 3 ..	698	701	−3	−3
„ 12 ..	693	687	+6	+6	„ 10 ..	699	703	−4	−4
„ 20 ..	691	691	0	0	„ 18 ..	757	706	+51	+32
„ 26 ..	686	692	−6	−6	„ 24 ..	740	709	+31	+12
					„ 31 ..	736	710	+26	+7
June 2 ..	676	692	−16	−16					
„ 9 ..	677	691	−14	−14	June 7 ..	713	710	+3	−16
„ 16 ..	683	689	−6	−6	„ 14 ..	713	710	+3	−16
„ 23 ..	683	686	−3	−3	„ 22 ..	742	708	+34	+15
„ 30 ..	683	683	0	0	„ 28 ..	713	705	+8	−11
July 7 ..	677	684	−7	−7	July 5 ..	725	703	+22	+3
„ 14 ..	671	685	−14	−14	„ 12 ..	726	703	+23	+4
„ 21 ..	681	685	−4	−4	„ 19 ..	719	703	+16	−3
„ 28 ..	677	685	−8	−8	„ 26 ..	711	702	+9	−10
Aug. 4 ..	676	687	−11	−11	Aug. 2 ..	718	706	+12	−7
„ 18 ..	689	687	+2	+2	„ 9 ..	721	708	+13	−6
„ 25 ..	679	687	−8	−8	„ 16 ..	717	709	+8	−11
					„ 23 ..	723	709	+14	−5
Sept. 1 ..	689	689	0	0	„ 30 ..	753	710	+43	+24
„ 8 ..	673	689	−16	−16					
„ 15 ..	681	689	−8	−8	Sept. 13 ..	723	710	+13	−6
„ 22 ..	682	690	−8	−8	„ 20 ..	751	711	+40	+21
„ 29 ..	685	691	−6	−6	„ 27 ..	736	712	+24	+5
Oct. 7 ..	691	693	−2	−2	Oct. 11 ..	733	713	+20	+1
„ 13 ..	693	694	−1	−1	„ 19 ..	729	713	+16	−3
„ 20 ..	702	693	+9	+9	„ 25 ..	738	714	+24	+5
„ 27 ..	693	692	+1	+1					
					Nov. 1 ..	727	713	+14	−5
Nov. 3 ..	699	692	+7	+7	„ 8 ..	733	713	+20	+1
„ 10 ..	687	690	−3	−3	„ 15 ..	723	711	+12	−7
„ 17 ..	700	689	+11	+11	„ 22 ..	719	710	+9	−10
„ 24 ..	687	689	−2	−2	„ 29 ..	734	708	+26	+7
Dec. 1 ..	691	691	0	0	Dec. 6 ..	725	708	+17	−2
„ 8 ..	683	691	−8	−8	„ 13 ..	741	709	+32	+13
„ 22 ..	689	692	−3	−3	„ 20 ..	718	711	+7	−12
„ 29 ..	691	692	−1	−1	„ 27 ..	727	715	+12	−7
				± 6					± 8

1920. The whole series is therefore separated into five periods, 3rd January 1916 to 12th March 1917, 19th March 1917 to 10th December 1917, periods are, for columns 2, 3 and 4 respectively, 36616, 36605 and +11; 36609, 36634 and —26; 36666, 36652 and +14; 36681, 36682 and 0, periods.

the converted ordinates from the mean observed absolute horizontal force. From the corresponding temperatures in table I*b* and by means from month to month and year to year.

differences in column 4 would therefore represent (1) the instrumental and site differences and (2) the probable errors of the absolute determination. differences for each observation which are given in column 5 would represent the errors due to (2). (*Vide* Introduction).

TABLE V*a*.—*Base line values of the Declination Magnetograph derived*

1916.	January.			February.			March.			April.			May.			June.		
Date.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 ..		3·7			4·4			5·2			5·0			4·3		4·3	4·3	0
2 ..		3·7			4·4			5·3			5·0			4·3			4·3	
3 ..		3·7		4·3	4·4	−0·1	5·2	5·3	−0·1		5·0			4·3			4·3	
4 ..		3·7			4·5			5·3			4·9		4·2	4·3	−0·1		4·4	
5 ..		3·7			4·5			5·3			4·9			4·3			4·4	
6 ..	3·7	3·7	0		4·5			5·3		4·1	4·9	−0·8		4·3			4·4	
7 ..		3·8			4·6			5·3			4·8			4·3			4·4	
8 ..		3·8			4·6			5·4			4·8			4·3		4·2	4·4	−0·2
9 ..		3·8			4·6		5·3	5·4	−0·1		4·8			4·3			4·5	
10 ..		3·8		4·6	4·7	−0·1		5·4			4·7			4·3			4·5	
11 ..		3·9			4·7			5·4			4·7		4·1	4·3	−0·2		4·5	
12 ..		3·9			4·7			5·4			4·7			4·3			4·5	
13 ..	4·0	3·9	+0·1		4·7			5·5		4·4	4·7	−0·3		4·3			4·6	
14 ..		3·9			4·8			5·5			4·6			4·3			4·6	
15 ..		3·9			4·8			5·5			4·6			4·2		4·6	4·6	0
16 ..		4·0			4·8			5·5			4·5			4·2			4·7	
17 ..		4·0		5·0	4·8	+0·2	5·7	5·5	+0·2		4·5			4·2			4·7	
18 ..		4·0			4·9			5·5			4·4		4·3	4·2	+0·1		4·7	
19 ..		4·0			4·9			5·4			4·4			4·2			4·7	
20 ..	4·0	4·1	−0·1		4·9			5·4		4·4	4·3	+0·1		4·2			4·7	
21 ..		4·1			4·9			5·4			4·3			4·2			4·7	
22 ..		4·1			5·0			5·3			4·3			4·2		5·1	4·7	+0·4
23 ..		4·1			5·0		5·5	5·3	+0·2		4·3			4·2			4·7	
24 ..		4·1		5·1	5·0	+0·1		5·3			4·4			4·2			4·7	
25 ..		4·2			5·1			5·3			4·4		4·0	4·2	−0·2		4·7	
26 ..		4·2			5·1			5·2			4·4			4·2			4·7	
27 ..	4·3	4·2	+0·1		5·1			5·2		4·7	4·4	+0·3		4·2			4·7	
28 ..		4·3			5·2			5·2			4·4			4·3			4·7	
29 ..		4·3			5·2			5·1			4·4			4·3		5·0	4·7	+0·3
30 ..		4·3					5·9	5·1	+0·8		4·4			4·3			4·7	
31 ..		4·3						5·1						4·3				
Means ..	4·00	3·97	±0·07	4·75	4·79	±0·13	5·52	5·33	±0·03	4·40	4·60	±0·04	4·15	4·26	±0·15	4·64	4·57	±0·18

Base line values are derived by converting the corresponding tabulated ordinates in Table II*a* into arc and subtracting the converted ordinates denote *westerly* declination.

The calculated values in column 2 are derived by taking overlapping means of 5 successive observations and reducing them to the proper epoch.

The departures of the observed from the calculated values in column 3 represent in the main the probable errors of the absolute determinations.

* A shift in the base line of 0′·98 occurred on the 27th December at 9h. 11m.

from observations of absolute Declination with Instrument No. 7.

July.			August.			September.			October.			November.			December.		
Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.
1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
	4·7			4·8			5·7			5·9			5·9		5·7	5·8	−0·1
	4·7			4·8			5·7			5·9		6·4	5·9	+0·5		5·8	
	4·7		4·8	4·8	0		5·7			5·9			5·9			5·8	
	4·7			4·9			5·8			5·9			5·9			5·8	
	4·8			4·9			5·8		6·0	5·9	+0·1		5·9			5·8	
4·6	4·8	−0·2		4·9			5·8			5·9			5·9			5·8	
	4·7			4·9		6·0	5·9	+0·1		5·9			6·0		5·7	5·8	−0·1
	4·7			4·9			5·9			5·9			6·0			5·8	
	4·7			4·9			5·9			5·9		5·8	6·0	−0·2		5·8	
	4·7		5·0	5·0	0		5·9			5·9			6·0			5·8	
	4·7			5·0			5·9			5·9			6·0			5·9	
	4·7			5·1			5·9		6·1	5·9	+0·2		5·9			5·9	
4·4	4·7	−0·3		5·1			5·9			5·9			5·9			5·9	
	4·7			5·1		5·6	5·9	−0·3		5·9			5·9		5·7	5·9	−0·2
	4·7			5·2			5·9			5·9			5·9			5·9	
	4·6			5·2			5·9			6·0		5·9	5·9	0		5·9	
	4·6		5·1	5·3	−0·2		5·9			6·0			5·9			5·9	
	4·6			5·3			5·9			6·0			5·9			5·9	
	4·6			5·3			5·9		5·6	6·0	−0·4		5·9			5·9	
4·7	4·6	+0·1		5·4			5·9			6·0			5·8			5·9	
	4·6			5·4		6·1	5·9	+0·2		6·0			5·8		6·0	5·9	+0·1
	4·6			5·5			5·9			6·0			5·8			6·0	
	4·7			5·5			5·9			6·0		5·8	5·8	0		6·0	
	4·7		5·4	5·5	−0·1		5·9			6·0			5·8			6·0	
	4·7			5·5			5·9			6·0			5·8			6·0	
	4·7			5·5			5·9			6·0			5·8			6·0*	
4·6	4·7	−0·1		5·6			5·9		5·9	6·0	−0·1		5·8			7·0	
	4·7			5·6		5·9	5·9	0		6·0			5·8			7·0	
	4·7			5·6			5·9			5·9			5·8		7·2	7·0	+0·2
	4·8			5·6			5·9			5·9			5·8			7·1	
	4·8		6·1	5·6	+0·5					5·9						7·1	
4·57	4·69	±0·17	5·28	5·22	±0·16	5·90	5·87	±0·15	5·90	5·94	±0·20	5·97	5·88	±0·17	6·06	6·07	±0·14

from the observed absolute Easterly Declination (1 c. m.=10′·28). The values so obtained of the base lines of the Declination Magnetograph values for intermediate days being obtained by simple interpolation.

TABLE V*b*.—*Base line values of the Declination Magnetograph derived*

1917.	January.			February.			March.			April.			May.			June.		
Date.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 ..		7·1		7·4	7·4	0	6·8	7·3	−0·5		7·3			6·7			6·6	
2 ..		7·1			7·4			7·3			7·3			6·7			6·6	
3 ..		7·1			7·4			7·3			7·3		6·4	6·6	−0·2		6·6	
4 ..	7·0	7·1	−0·1		7·4			7·2			7·3			6·6			6·6	
5 ..		7·1			7·4			7·2		7·5	7·3	+0·2		6·6			6·6	
6 ..		7·1			7·5			7·2			7·3			6·6			6·6	
7 ..		7·1			7·5			7·2			7·3			6·6		6·5	6·6	−0·1
8 ..		7·2		7·4	7·5	−0·1		7·2			7·3			6·6			6·6	
9 ..		7·2			7·5		7·3	7·2	+0·1		7·3			6·6			6·6	
10 ..		7·2			7·4			7·2			7·3		6·5	6·6	−0·1		6·6	
11 ..	7·2	7·2	0		7·4			7·2			7·3			6·6			6·6	
12 ..		7·2			7·4			7·2		7·2	7·2	0		6·6			6·6	
13 ..		7·2			7·4			7·2			7·2			6·6			6·6	
14 ..		7·2			7·4			7·2			7·2			6·6		6·5	6·6	−0·1
15 ..		7·2			7·3		7·3	7·2	+0·1		7·1			6·6			6·6	
16 ..		7·2		7·7	7·3	+0·4		7·2			7·1			6·6			6·6	
17 ..		7·2			7·3			7·3			7·1		6·5	6·6	−0·1		6·6	
18 ..	7·2	7·2	0		7·3			7·3			7·0			6·6			6·6	
19 ..		7·3			7·3			7·3		7·1	7·0	+0·1		6·6			6·6	
20 ..		7·3			7·3			7·3			6·9			6·6			6·6	
21 ..		7·3			7·3			7·3			6·9			6·6		6·5	6·6	−0·1
22 ..		7·3		7·5	7·3	+0·2	7·0	7·3	−0·3		6·9			6·6			6·7	
23 ..		7·3			7·3			7·3			6·9			6·6			6·7	
24 ..		7·3			7·3			7·3			6·8		6·7	6·6	−0·1		6·7	
25 ..	7·4	7·3	+0·1		7·3			7·3			6·8			6·6			6·7	
26 ..		7·3			7·3			7·3		6·7	6·8	−0·1		6·6			6·7	
27 ..		7·3			7·3			7·3			6·8			6·6			6·7	
28 ..		7·3			7·3			7·3			6·7			6·6		6·7	6·8	−0·1
29 ..		7·4					7·7	7·3	+0·4		6·7			6·6			6·8	
30 ..		7·4						7·3			6·7			6·6			6·8	
31 ..		7·4						7·3					6·9	6·6	+0·3			
Means ..	7·20	7·23	±0·05	7·50	7·36	±0·17	7·22	7·26	±0·28	7·13	7·07	±0·10	6·60	6·61	±0·16	6·55	6·64	±0·10

from observations of absolute Declination with Instrument No. 7.

July.			August.			September.			October.			November.			December.		
Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.
1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
	6·8			7·3			7·5			7·4		7·8	7·8	0		8·2	
	6·8			7·3			7·5			7·4			7·8			8·2	
	6·9		7·3	7·3	0		7·5			7·4			7·8			8·2	
	6·9			7·3			7·5			7·4			7·8			8·2	
6·9	6·9	0		7·3			7·5		7·3	7·4	−0·1		7·8			8·2	
	6·9			7·4		7·3	7·5	−0·2		7·4			7·9		8·4	8·2	+0·2
	6·9			7·4			7·4			7·5			7·9			8·2	
	6·9			7·4			7·4			7·5		7·8	7·9	−0·1		8·2	
	7·0			7·4			7·4			7·5			7·9			8·2	
	7·0		7·4	7·4	0		7·4			7·5			7·9			8·2	
	7·0			7·4			7·4		7·4	7·5	−0·1		7·9			8·2	
7·1	7·0	+0·1		7·4			7·4			7·5			7·9			8·2	
	7·1			7·4		7·6	7·4	+0·2		7·5			8·0		8·4	8·2	+0·2
	7·1			7·4			7·4			7·5			8·0			8·2	
	7·1			7·5			7·4			7·6			8·0			8·2	
	7·1		7·4	7·5	−0·1		7·4			7·6		8·1	8·0	+0·1		8·2	
	7·1			7·5			7·4			7·6			8·0			8·2	
	7·1			7·5			7·3		7·7	7·6	+0·1		8·1			8·2	
7·1	7·1	0		7·5			7·3			7·6			8·1			8·2	
	7·2			7·5			7·3			7·6			8·1		7·8	8·2	−0·4
	7·2			7·5		7·2	7·3	−0·1		7·6			8·1			8·2	
	7·2			7·5			7·3			7·6		7·9	8·1	−0·2		8·2	
	7·2		7·7	7·5	+0·2		7·3			7·7			8·1			8·2	
	7·2			7·5			7·4			7·7			8·1			8·2	
	7·2			7·5			7·4			7·7			8·2			8·2	
7·3	7·2	+0·1		7·5			7·4		7·8	7·7	+0·1		8·2			8·2	
	7·2			7·5		7·3	7·4	−0·1		7·7			8·2		8·1	8·2	−0·1
	7·3			7·5			7·4			7·7			8·2			8·2	
	7·3			7·5			7·4			7·8		8·4	8·2	+0·2		8·2	
	7·3			7·5			7·4			7·8			8·2			8·2	
	7·3		7·6	7·5	+0·1					7·8						8·2	
7·10	7·08	±0·05	7·48	7·44	±0·08	7·35	7·40	±0·15	7·55	7·57	±0·10	8·00	8·01	±0·12	8·17	8·20	±0·23

TABLE Vc.—*Base line values of the Declination Magnetograph derived*

1918.	January			February.			March.			April.			May.			June.		
Date.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 ..		8·2			8·5			8·5			7·5			6·9			7·2	
2 ..		8·2			8·5			8·5			7·4		7·5	6·9	+0·6		7·2	
3 ..	8·5	8·2	+0·3		8·5			8·4			7·4			7·0			7·2	
4 ..		8·2			8·5			8·4		7·6	7·3	+0·3		7·0			7·2	
5 ..		8·2			8·5			8·4			7·3			7·0			7·2	
6 ..		8·3			8·5			8·3			7·3			7·0		7·1	7·2	−0·1
7 ..		8·3		8·6	8·5	+0·1	8·4	8·3	+0·1		7·2			7·0			7·2	
8 ..		8·3			8·5			8·3			7·2			7·0			7·2	
9 ..		8·3			8·5			8·3			7·1		7·4	7·0	+0·4		7·2	
10 ..	8·3	8·4	−0·1		8·5			8·3			7·1			7·1			7·3	
11 ..		8·4			8·5			8·3		7·3	7·1	+0·2		7·1			7·3	
12 ..		8·4			8·5			8·2			7·1			7·1			7·3	
13 ..		8·4			8·5			8·2			7·1			7·2		7·5	7·3	+0·2
14 ..		8·4		8·6	8·5	+0·1	8·4	8·2	+0·2		7·0			7·2			7·3	
15 ..		8·4			8·5			8·2			7·0			7·2			7·3	
16 ..		8·4			8·5			8·2			7·0		7·1	7·3	−0·2		7·3	
17 ..	8·2	8·4	−0·2		8·5			8·1			7·0			7·2			7·4	
18 ..		8·4			8·5			8·1		6·4	7·0	−0·6		7·2			7·4	
19 ..		8·4			8·5			8·1			7·0			7·2			7·4	
20 ..		8·4			8·5			8·0			7·0			7·2		7·0	7·4	−0·4
21 ..		8·4		8·3	8·5	−0·2	7·7	8·0	−0·3		7·0			7·2			7·4	
22 ..		8·4			8·5			7·9			7·0			7·2			7·4	
23 ..		8·4			8·5			7·9			7·0		6·8	7·2	−0·4		7·4	
24 ..	8·7	8·4	+0·3		8·5			7·9			7·0			7·2			7·5	
25 ..		8·4			8·5			7·8		6·4	7·0	−0·6		7·2			7·5	
26 ..		8·5			8·5			7·8			7·0			7·2			7·5	
27 ..		8·5			8·5			7·7			7·0			7·2		7·6	7·5	+0·1
28 ..		8·5		8·8	8·5	+0·3		7·7			7·0			7·2			7·5	
29 ..		8·5						7·6			7·0			7·2			7·5	
30 ..		8·5						7·6			7·0			7·2			7·5	
31 ..	8·4	8·5	−0·1					7·5					7·4	7·2	+0·2			
Means ..	8·42	8·37	±0·20	8·57	8·50	±0·17	8·17	8·09	±0·20	6·93	7·10	±0·04	7·24	7·13	±0·36	7·30	7·34	±0·20

from observations of absolute Declination with Instrument No. 7.

July.			August.			September.			October.			November.			December.		
Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.
1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
	7·5		7·6	7·8	−0·2		8·3			8·1			7·7			7·7	
	7·5			7·9			8·3			8·1			7·7			7·7	
	7·5			7·9			8·3		8·3	8·1	+0·2		7·7			7·7	
	7·5			7·9			8·3			8·1			7·7			7·7	
7·8	7·5	+0·3		7·9		8·2	8·3	−0·1		8·1			7·7		7·9	7·7	+0·2
	7·6			8·0			8·3			8·1			7·7			7·7	
	7·6			8·0			8·3			8·0		7·9	7·7	+0·2		7·8	
	7·6		7·9	8·0	−0·1		8·3			8·0			7·7			7·8	
	7·7			8·0			8·3			8·0			7·7			7·9	
	7·7			8·1			8·3		7·9	8·0	−0·1		7·7			7·9	
7·8	7·7	+0·1		8·1			8·3			8·0			7·7			7·9	
	7·7			8·1		8·3	8·3	0		7·9			7·7		8·0	7·9	+0·1
	7·7			8·1			8·3			7·9			7·7			7·9	
	7·7			8·1			8·3			7·9		7·6	7·7	−0·1		8·0	
	7·7		8·2	8·1	+0·1		8·3			7·9			7·7			8·0	
	7·7			8·1			8·3			7·9			7·7			8·0	
	7·7			8·1			8·3		7 7	7·9	−0·2		7 7			8·0	
7·5	7·7	−0·2		8·1			8·3			7·9			7·7			8·0	
	7·7			8·1		8·4	8·3	+0·1		7·9			7·7		7·7	8·0	−0·3
	7·7			8·2			8·3			7·8			7·7			8·0	
	7·7			8·2			8·3			7·8		7·3	7·7	−0·4		8·0	
	7·7		8·5	8·2	+0·3		8·3			7·8			7·7			8·0	
	7·7			8·2			8·3			7 8			7·7			8·1	
	7·7			8·2			8·2		7·7	7·8	−0·1		7·7			8·1	
7·9	7·7	+0·2		8·2			8·2			7·8			7·7			8·1	
	7·7			8·2		8·3	8·2	+0·1		7·8			7·7		8·4	8·1	+0·3
	7·8			8·3			8·2			7·8			7·7			8·1	
	7·8			8·3			8·2			7·8		7·7	7·7	0		8·1	
	7·8		8·3	8·3	0		8·2			7·8			7·7			8·1	
	7·8			8·3			8·2			7·7			7·7			8·1	
	7·8			8·3					7·8	7·7	+0·1					8·1	
7·75	7·67	±0·20	8·10	8·11	±0·14	8·30	8·28	±0·07	7·88	7·91	±0·14	7·63	7·70	±0·17	8·00	7·94	±0·23

TABLE Vd.—*Base line values of the Declination Magnetograph derived*

1919.	January.			February.			March.			April.			May.			June.		
Date.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 ..		8·0			8·1			8·3			8·5		7·6	7·8	−0·2		7·6	
2 ..	8·0	8·0	0		8·1			8·3			8·5			7·8			7·6	
3 ..		8·0			8·2			8·3		9·3	8·5	+0·8		7·8			7·6	
4 ..		8·1			8·2			8·3			8·5			7·8			7·6	
5 ..		8·1			8·2			8·3			8·4			7·8		7·5	7·6	−0·1
6 ..		8·1		8·4	8·2	+0·2	8·0	8·3	−0·3		8·4			7·8			7·6	
7 ..		8·1			8·2			8·3			8·4			7·7			7·5	
8 ..		8·1			8·2			8·3			8·4		7·6	7·7	−0·1		7·5	
9 ..	8·3	8·1	+0·2		8·2			8·3			8·4			7·7			7·5	
10 ..		8·1			8·2			8·3		8·2	8·4	−0·2		7·7			7·5	
11 ..		8·1			8·2			8·3			8·4			7·7			7·5	
12 ..		8·1			8·3			8·3			8·3			7·7		7·1	7·5	−0·4
13 ..		8·0		8·4	8·3	+0·1	8·4	8·3	+0·1		8·3			7·7			7·4	
14 ..		8·0			8·3			8·3			8·3			7·7			7·4	
15 ..		8·0			8·3			8·3			8·3		7·7	7·7	0		7·4	
16 ..	7·7	8·0	−0·3		8·3			8·4			8·2			7·7			7·4	
17 ..		8·0			8·3			8·4		8·1	8·2	−0·1		7·7			7·4	
18 ..		8·0			8·3			8·4			8·2			7·7			7·4	
19 ..		8·0			8·3			8·5			8·1			7·7		7·6	7·4	+0·2
20 ..		8·0		8·6	8·3	+0·3	8·3	8·5	−0·2		8·1			7·7			7·4	
21 ..		8·0			8·3			8·5			8·0			7·7			7·4	
22 ..		8·0			8·3			8·5			8·0		7·9	7·7	+0·2		7·4	
23 ..	8·1	8·1	0		8·3			8·5			7·9			7·7			7·4	
24 ..		8·1			8·3			8·5		7·9	7·9	0		7·7			7·4	
25 ..		8·1			8·3			8·5			7·9			7·7			7·4	
26 ..		8·1			8·3			8·5			7·9			7·7		7·3	7·5	−0·2
27 ..		8·1		8·2	8·3	−0·1	8·4	8·5	−0·1		7·8			7·6			7·5	
28 ..		8·1			8·3			8·5			7·8			7·6			7·5	
29 ..		8·1						8·5			7·8		7·7	7·6	+0·1		7·5	
30 ..	7·6	8·1	−0·5					8·5			7·8			7·6			7·5	
31 ..		8·1						8·5						7·6				
Means ..	7·94	8·06	±0·20	8·40	8·25	±0·17	8·27	8·39	±0·17	8·37	8·19	±0·27	7·70	7·70	±0·12	7·37	7·48	±0·23

from observations of absolute Declination with Instrument No. 7.

July.			August.			September.			October.			November.			December.		
Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.
1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
	7·5			7·9			8·2			8·4			8·1			7·9	
	7·6			7·9			8·2		8·4	8·4	0		8·1			7·9	
7·3	7·6	−0·3		7·9			8·2			8·4			8·1			7·9	
	7·6			7·9		8·0	8·1	−0·1		8·4			8·1		7·9	7·8	+0·1
	7·6			7·9			8·2			8·4			8·1			7·8	
	7·6			7·9			8·2			8·3		7·9	8·1	−0·2		7·8	
	7·6		7·5	7·9	−0·4		8·2			8·3			8·1			7·8	
	7·6			7·9			8·2			8·3			8·1			7·8	
	7·6			7·9			8·2		8·5	8·3	+0·2		8·1			7·8	
8·0	7·6	+0·4		7·9			8·2			8·3			8·0			7·7	
	7·6			7·9		8·2	8·2	0		8·3			8·0		7·7	7·7	0
	7·6			7·9			8·2			8·3			8·0			7·7	
	7·7			7·9			8·2			8·3		8·0	8·0	0		7·7	
	7·7		8·8	8·0	+0·8		8·2			8·3			8·0			7·7	
	7·7			8·0			8·2			8·3			8·0			7·7	
	7·7			8·0			8·2		8·5	8·3	+0·2		8·0			7·7	
7·8	7·7	+0·1		8·0			8·3			8·3			8·0			7·6	
	7·7			8·0		8·5	8·3	+0·2		8·3			8·0		7·4	7·6	−0·2
	7·7			8·0			8·3			8·3			8·0			7·6	
	7·7			8·1			8·3			8·3		8·3	8·0	+0·3		7·6	
	7·7		7·7	8·1	−0·4		8·3			8·3			8·0			7·6	
	7·7			8·1			8·3			8·2			8·0			7·6	
	7·7			8·1			8·3		8·0	8·2	−0·2		8·0			7·6	
7·9	7·7	+0·2		8·1			8·3			8·2			8·0			7·6	
	7·7			8·1		8·1	8·3	−0·2		8·2			8·0		7·7	7·5	+0·2
	7·8			8·2			8·4			8·2			8·0			7·5	
	7·8			8·2			8·4			8·2		7·9	7·9	0		7·5	
	7·8		8·3	8·2	+0·1		8·4			8·1			7·9			7·5	
	7·8			8·2			8·4			8·1			7·9			7·5	
	7·9			8·2			8·4		8·2	8·1	+0·1		7·9			7·5	
7·5	7·9	−0·4		8·2						8·1						7·5	
7·70	7·68	±0·28	8·07	8·02	±0·43	8·20	8·26	±0·13	8·32	8·27	±0·14	8·03	8·02	±0·13	7·67	7·67	±0·13

TABLE Ve.—*Base line values of the Declination Magnetograph derived*

1920.	January.			February.			March.			April.			May.			June.		
Date.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1 ..		7·5			7·8			8·1		8·0	7·9	+0·1		7·1			6·6	
2 ..	7·3	7·5	−0·2		7·8			8·1			7·9			7·0			6·6	
3 ..		7·5			7·8			8·1			7·9			7·0		6·8	6·6	+0·2
4 ..		7·5			7·8		8·1	8·1	0		7·9			7·0			6·6	
5 ..		7·5		8·0	7·9	+0·1		8·1			7·9			6·9			6·7	
6 ..		7·5			7·9			8·1			7·9		7·0	6·9	+0·1		6·7	
7 ..		7·5			7·9			8·1			7·9			6·9			6·7	
8 ..	7·6	7·5	+0·1		7·9			8·1		7·7	7·9	−0·2		6·8			6·7	
9 ..		7·5			7·9			8·1			7·8			6·8			6·7	
10 ..		7·5			7·9			8·2			7·8			6·8		6·3	6·7	−0·4
11 ..		7·5			8·0		8·2	8·2	0		7·8			6·7			6·8	
12 ..		7·5		7·7	8·0	−0·3		8·1			7·7			6·7			6·8	
13 ..		7·5			8·0			8·1			7·7		6·3	6·7	−0·4		6·8	
14 ..		7·5			8·0			8·1			7·7			6·7			6·8	
15 ..	7·3	7·5	−0·2		8·0			8·1		7·6	7·6	0		6·7			6·8	
16 ..		7·5			8·0			8·1			7·6			6·7			6·8	
17 ..		7·6			8·0			8·1			7·6			6·7		6·7	6·8	−0·1
18 ..		7·6			8·0		8·1	8·1	0		7·5			6·7			6·8	
19 ..		7·6		8·1	8·0	+0·1		8·1			7·5			6·7			6·8	
20 ..		7·6			8·1			8·1			7·5		6·3	6·7	−0·4		6·8	
21 ..		7·7			8·1			8·1			7·5			6·6			6·8	
22 ..	7·5	7·7	−0·2		8·1			8·1		7·8	7·4	+0·4		6·6			6·8	
23 ..		7·7			8·1			8·1			7·4			6·6			6·9	
24 ..		7·7			8·1			8·0			7·3			6·6		7·0	6·9	+0·1
25 ..		7·7			8·1		8·2	8·0	+0·2		7·3			6·6			6·9	
26 .		7·7		8·2	8·1	+0·1		8·0			7·3			6·5			6·9	
27 ..		7·7			8·1			8·0			7·2		6·9	6·5	+0·4		6·9	
28 ..		7·7			8·1			8·0			7·2			6·5			6·9	
29 ..	7·9	7·7	+0·2		8·1			8·0		7·1	7·1	0		6·5			6·9	
30 .		7·7						7·9			7·1			6·6			7·0	
31 ..		7·7						7·9						6·6				
Means ..	7·52	7·58	±0·18	8·00	7·99	±0·15	8·15	8·07	±0·05	7·64	7·59	±0·14	6·63	6·72	±0·33	6·70	6·78	±0·20

from observations of absolute Declination with Instrument No. 7.

July.			August.			September.			October.			November.			December.		
Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.	Observed.	Calculated.	Observed less calculated.
1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
7·1	7·0	+0·1		6·8			7·1			7·4			7·4			7·4	
	7·0			6·8		7·4	7·1	+0·3		7·4			7·4		7·3	7·4	−0·1
	7·0			6·8			7·1			7·4			7·4			7·3	
	7·0			6·8			7·2			7·4		7·5	7·4	+0·1		7·3	
	7·0		6·7	6·8	−0·1		7·2			7·4			7·4			7·3	
	7·0			6·8			7·2			7·4			7·4			7·3	
	7·1			6·8			7·2		7·5	7·4	+0·1		7·4			7·3	
7·1	7·1	0		6·7			7·3			7·4			7·4			7·3	
	7·1			6·7		7·4	7·3	+0·1		7·4			7·4		7·6	7·3	+0·3
	7·1			6·7			7·3			7·4			7·4			7·3	
	7·0			6·7			7·3			7·4		7·4	7·4	0		7·3	
	7·0		6·6	6·7	−0·1		7·3			7·3			7·4			7·3	
	7·0			6·7			7·4			7·3			7·4			7·2	
	7·0			6·7			7·4		7·1	7·3	−0·2		7·4			7·2	
6·9	7·0	−0·1		6·8			7·4			7·3			7·4			7·2	
	7·0			6·8		7·3	7·4	−0·1		7·3			7·4		7·1	7·2	−0·1
	7·0			6·8			7·4			7·3			7·4			7·2	
	7·0			6·8			7·4			7·3		7·5	7·4	+0·1		7·2	
	7·0		6·8	6·8	0		7·4			7·3			7·4			7·2	
	6·9			6·9			7·4			7·3			7·4			7·1	
	6·9			6·9			7·4		7·4	7·3	+0·1		7·4			7·1	
7·1	6·9	+0·2		6·9			7·5			7·3			7·4			7·1	
	6·9			6·9		7·6	7·5	+0·1		7·3			7·4		7·1	7·1	0
	6·9			6·9			7·4			7·3			7·4			7·1	
	6·9			6·9			7·4			7·3		7·4	7·4	0		7·1	
	6·9		6·7	7·0	−0·3		7·4			7·3			7·4			7·1	
	6·8			7·0			7·4			7·3			7·4			7·1	
	6·8			7·0			7·4		7·3	7·3	0		7·4			7·0	
6·7	6·8	−0·1		7·0			7·4			7·3			7·4			7·0	
	6·8			7·1		7·5	7·4	+0·1		7·4			7·4		7·0	7·0	0
	6·8			7·1						7·4						7·0	
6·98	6·96	±0·10	6·70	6·84	±0·13	7·44	7·33	±0·14	7·33	7·34	±0·10	7·45	7·40	±0·05	7·22	7·19	±0·10

TABLE V*f*.—*Base line values of the Declination Magnetograph derved*

1916.					1917.					1918.		
Date.	Observed.	Calculated.	Difference.	Excesses of the differences in column 4 over the mean difference for the year.	Date.	Observed.	Calculated.	Difference.	Excesses of the differences in column 4 over the mean difference for the year.	Date.	Observed.	Calculated.
1	2	3	4	5	1	2	3	4	5	1	2	3
	′	′	′	′		′	′	′	′		′	′
Jan. 6	3·7	3·7	0	0	Jan. 4	7·7	7·1	−0·6	0	Jan. 3	8·6	8·2
,, 13	4·0	3·9	−0·1	−0·1	,, 11	7·4	7·2	−0·2	+0·4	,, 10	8·2	8·4
,, 20	3·9	4·1	+0·2	+0·2	,, 18	7·6	7·2	−0·4	+0·2	,, 17	8·2	8·4
,, 27	4·7	4·2	−0·5	−0·5	,, 25	7·4	7·3	−0·1	+0·5	,, 24	8·7	8·4
										,, 31	8·9	8·5
Feb. 3	4·6	4·4	−0·2	−0·2	Feb. 1	7·3	7·4	+0·1	+0·7			
,, 10	5·2	4·7	−0·5	−0·5	,, 8	7·6	7·5	−0·1	+0·5	Feb. 7	9·4	8·5
,, 17	5·5	4·8	−0·7	−0·7	,, 16	8·0	7·3	−0·7	−0·1	,, 14	9·5	8·5
,, 24	5·9	5·0	−0·9	−0·9	,, 22	7·8	7·3	−0·5	+0·1	,, 21	8·8	8·5
										,, 28	8·6	8·5
Mar. 3	6·1	5·3	−0·8	−0·8	Mar. 1	7·7	7·3	−0·4	+0·2			
,, 9	6·1	5·4	−0·7	−0·7	,, 9	7·9	7·2	−0·7	−0·1	March 7	8·0	8·3
,, 17	6·1	5·5	−0·6	−0·6	,, 15	8·1	7·2	−0·9	−0·3	,, 14	7·8	8·2
,, 23	5·9	5·3	−0·6	−0·6	,, 22	7·8	7·3	−0·5	+0·1	,, 21	7·3	8·0
,, 30	5·9	5·1	−0·8	−0·8	,, 29	7·9	7·3	−0·6	0			
Apr. 6	5·0	4·9	−0·1	−0·1	Apr. 5	8·0	7·3	−0·7	−0·1	Apr. 4	6·7	7·3
,, 13	4·9	4·7	−0·2	−0·2	,, 12	7·9	7·2	−0·7	−0·1	,, 11	6·8	7·1
,, 20	4·3	4·3	0	0	,, 19	8·1	7·0	−1·1	−0·5	,, 18	6·5	7·0
,, 27	4·5	4·4	−0·1	−0·1	,, 26	7·5	6·8	−0·7	−0·1	,, 25	6·5	7·0
May 4	4·2	4·3	+0·1	+0·1	May 3	7·1	6·6	−0·5	+0·1	May 2	6·3	6·9
,, 11	3·5	4·3	+0·8	+0·8	,, 10	7·2	6·6	−0·6	0	,, 9	6·0	7·0
,, 18	3·8	4·2	+0·4	+0·4	,, 17	7·5	6·6	−0·9	−0·3	,, 16	6·6	7·3
,, 25	3·6	4·2	+0·6	+0·6	,, 24	7·3	6·6	−0·7	−0·1	,, 23	8·9	7·2
					,, 31	7·0	6·6	−0·4	+0·2	,, 31	7·6	7·2
June 1	3·8	4·3	+0·5	+0·5								
,, 8	4·1	4·4	+0·3	+0·3	June 7	7·1	6·6	−0·5	+0·1	June 6	7·5	7·2
,, 15	4·2	4·6	+0·4	+0·4	,, 14	7·1	6·6	−0·5	+0·1	,, 13	8·3	7·3
,, 22	4·0	4·7	+0·7	+0·7	,, 21	7·3	6·6	−0·7	−0·1	,, 20	9·7	7·4
,, 29	4·2	4·7	+0·5	+0·5	,, 28	7·4	6·8	−0·6	0	,, 27	8·2	7·5
July 6	4·3	4·8	+0·5	+0·5	July 5	7·7	6·9	−0·8	−0·2	July 5	8·1	7·5
,, 13	4·3	4·7	+0·4	+0·4	,, 12	8·3	7·0	−1·3	−0·7	,, 11	8·1	7·7
,, 20	4·9	4·6	−0·3	−0·3	,, 19	7·7	7·1	−0·6	0	,, 18	8·2	7·7
,, 27	4·9	4·7	−0·2	−0·2	,, 26	7·9	7·2	−0·7	−0·1	,, 25	8·0	7·7
Aug. 3	4·6	4·8	+0·2	+0·2	Aug. 3	7·7	7·3	−0·4	+0·2	Aug. 1	7·4	7·8
,, 10	4·8	5·0	+0·2	+0·2	,, 10	7·7	7·4	−0·3	+0·3	,, 8	7·8	8·0
,, 17	5·2	5·3	+0·1	+0·1	,, 16	8·2	7·5	−0·7	−0·1	,, 15	8·0	8·1
,, 24	5·7	5·5	−0·2	−0·2	,, 23	7·9	7·5	−0·4	+0·2	,, 22	8·5	8·2
,, 31	5·7	5·6	−0·1	−0·1	,, 31	8·3	7·5	−0·8	−0·2	,, 29	8·0	8·3
Sept. 7	5·7	5·9	+0·2	+0·2	Sept. 6	8·1	7·5	−0·6	0	Sept. 5	8·1	8·3
,, 14	5·7	5·9	+0·2	+0·2	,, 13	8·0	7·4	−0·6	0	,, 12	8·4	8·3
,, 21	5·6	5·9	+0·3	+0·3	,, 21	8·2	7·3	−0·9	−0·3	,, 19	9·0	8·3
,, 28	5·8	5·9	+0·1	+0·1	,, 27	8·3	7·4	−0·9	−0·3	,, 26	8·1	8·2
Oct. 5	5·5	5·9	+0·4	+0·4	Oct. 5	7·9	7·4	−0·5	+0·1	Oct. 3	8·2	8·1
,, 12	6·0	5·9	−0·1	−0·1	,, 11	8·3	7·5	−0·8	−0·2	,, 10	7·9	8·0
,, 19	5·7	6·0	+0·3	+0·3	,, 18	8·0	7·6	−0·4	+0·2	,, 17	8·5	7·9
,, 27	6·0	6·0	0	0	,, 26	8·3	7·7	−0·6	0	,, 24	8·4	7·8
										,, 31	7·4	7·7
Nov. 2	6·0	5·9	−0·1	−0·1	Nov. 1	8·4	7·8	−0·6	0			
,, 9	5·6	6·0	+0·4	+0·4	,, 8	8·8	7·9	−0·9	−0·3	Nov. 7	7·7	7·7
,, 16	5·5	5·9	+0·4	+0·4	,, 16	8·9	8·0	−0·9	−0·3	,, 14	7·7	7·7
,, 23	5·6	5·8	+0·2	+0·2	,, 22	8·5	8·1	−0·4	+0·2	,, 21	7·7	7·7
					,, 29	8·4	8·2	−0·2	+0·4	,, 28	7·9	7·7
Dec. 1	5·7	5·8	+0·1	+0·1								
,, 7	5·7	5·8	+0·1	+0·1	Dec. 6	8·9	8·2	−0·7	−0·1	Dec. 5	7·9	7·7
,, 14	5·9	5·9	0	0	,, 13	8·4	8·2	−0·2	+0·4	,, 12	8·0	7·9
,, 21	6·0	5·9	−0·1	−0·1	,, 20	8·2	8·2	0	+0·6	,, 19	8·0	8·0
,, 29	7·5	7·0	−0·5	−0·5	,, 27	8·6	8·2	−0·4	+0·2	,, 26	7·1	8·1
Means ..	5·11	5·11	0·00	±0·33	Means ..	7·89	7·32	−0·57	±0·20	Means ..	7·95	7·84

Base line values are derived by converting the corresponding tabulated ordinates in table IIb into arc and subtracting the converted ordinates *westerly* declination.

The calculated values in column 3 are the same as those derived from instrument No. 7 and given in column 2, tables V*a* to V*e* and the If the annual means in column 4 be taken to represent for that year the difference due to (1), the excesses over this mean of the values of the A shift in the base line of 0′·98 occurred on the 27th December 1916.

from observations of absolute Declination with Instrument No. 3.

1919.							1920.				
Difference.	Excesses of the differences in column 4 over the mean difference for the year.	Date.	Observed.	Calculated.	Difference.	Excesses of the differences in column 4 over the mean difference for the year.	Date.	Observed.	Calculated.	Difference.	Excesses of the differences in column 4 over the mean difference for the year.
4	5	1	2	3	4	5	1	2	3	4	5
	′		′	′	′	′		′	′	′	′
−0·4	−0·3	Jan. 2	8·4	8·0	−0·4	+0·4	Jan. 2	8·5	7·5	−1·0	−0·5
+0·2	+0·3	,, 9	8·2	8·1	−0·1	+0·7	,, 8	8·3	7·5	−0·8	−0·3
+0·2	+0·3	,, 16	9·1	8·0	−1·1	−0·3	,, 15	9·2	7·5	−1·7	−1·2
−0·3	−0·2	,, 23	9·4	8·1	−1·3	−0·5	,, 22	8·5	7·7	−0·8	−0·3
−0·4	−0·3	,, 30	8·8	8·1	−0·7	+0·1	,, 29	8·0	7·7	−0·3	+0·2
−0·9	−0·8	Feb. 6	9·7	8·2	−1·5	−0·7	Feb. 5	8·2	7·9	−0·3	+0·2
−1·0	−0·9	,, 13	9·4	8·3	−1·1	−0·3	,, 12	7·2	8·0	+0·8	+1·3
−0·3	−0·2	,, 20	8·8	8·3	−0·5	+0·3	,, 19	8·1	8·0	−0·1	+0·4
−0·1	0	,, 27	9·4	8·3	−1·1	−0·3	,, 26	8·2	8·1	−0·1	+0·4
+0·3	+0·4	Mar. 6	9·5	8·3	−1·2	−0·4	Mar. 4	8·7	8·1	−0·6	−0·1
+0·4	+0·5	,, 13	9·5	8·3	−1·2	−0·4	,, 11	8·3	8·2	−0·1	+0·4
+0·7	+0·8	,, 20	9·0	8·5	−0·5	+0·3	,, 18	8·9	8·1	−0·8	−0·3
		,, 27	9·3	8·5	−0·8	0·0	,, 25	8·6	8·0	−0·6	−0·1
+0·6	+0·7	Apr. 3	9·3	8·5	−0·8	0·0	Apr. 1	8·6	7·9	−0·7	−0·2
+0·3	+0·4	,, 10	9·7	8·4	−1·3	−0·5	,, 8	8·8	7·9	−0·6	−0·1
+0·5	+0·6	,, 17	9·5	8·2	−1·3	−0·5	,, 15	7·4	7·6	+0·2	+0·7
+0·5	+0·6	,, 24	9·7	7·9	−1·8	−1·0	,, 22	8·9	7·4	−1·5	−1·0
							,, 29	8·2	7·1	−1·1	−0·6
+0·6	+0·7	May 1	8·9	7·8	−1·1	−0·3					
+1·0	+1·1	,, 8	8·7	7·7	−1·0	−0·2	May 6	8·1	6·9	−1·2	−0·7
+0·7	+0·8	,, 15	8·9	7·7	−1·2	−0·4	,, 13	7·5	6·7	−0·8	−0·3
−1·7	−1·6	,, 22	7·8	7·7	−0·1	+0·7	,, 20	8·0	6·7	−1·3	−0·8
−0·4	−0·3	,, 29	8·9	7·6	−1·3	−0·5	,, 27	6·8	6·5	−0·3	+0·2
−0·3	−0·2	June 5	8·5	7·6	−0·9	−0·1	June 3	6·4	6·6	+0·2	+0·7
−1·0	−0·9	,, 12	8·0	7·5	−0·5	+0·3	,, 10	6·5	6·7	+0·2	+0·7
−2·3	−2·2	,, 19	8·0	7·4	−0·6	+0·2	,, 17	7·0	6·8	−0·2	+0·3
−0·7	−0·6	,, 26	8·3	7·5	−0·8	0·0	,, 24	6·9	6·9	0	+0·5
−0·6	−0·5	July 3	8·6	7·6	−1·0	−0·2	July 1	7·7	7·0	−0·7	−0·2
−0·4	−0·3	,, 10	8·4	7·6	−0·8	0·0	,, 8	7·6	7·1	−0·5	0
−0·5	−0·4	,, 17	9·5	7·7	−1·8	−1·0	,, 15	7·4	7·0	−0·4	+0·1
−0·3	−0·2	,, 24	10·7	7·7	−3·0	−2·2	,, 22	7·2	6·9	−0·3	+0·2
		,, 31	9·1	7·9	−1·2	−0·4	,, 29	7·4	6·8	−0·6	−0·1
+0·4	+0·5										
+0·2	+0·3	Aug. 7	7·9	7·9	0	+0·8	Aug. 5	7·2	6·8	−0·4	+0·1
+0·1	+0·2	,, 14	8·1	8·0	−0·1	+0·7	,, 12	6·7	6·7	0	+0·5
−0·3	−0·2	,, 21	8·7	8·1	−0·6	+0·2	,, 19	7·2	6·8	−0·4	+0·1
+0·3	+0·4	,, 28	8·1	8·2	+0·1	+0·9	,, 26	7·3	7·0	−0·3	+0·2
+0·2	+0·3	Sept. 4	8·5	8·1	−0·4	+0·4	Sept. 2	7·7	7·1	−0·6	−0·1
−0·1	0	,, 11	8·7	8·2	−0·5	+0·3	,, 9	8·1	7·3	−0·8	−0·3
−0·7	−0·6	,, 18	8·7	8·3	−0·4	+0·4	,, 16	7·7	7·4	−0·3	+0·2
+0·1	+0·2	,, 25	9·2	8·3	−0·9	−0·1	,, 23	7·4	7·5	+0·1	+0·6
							,, 30	7·9	7·4	−0·5	0
−0·1	0	Oct. 2	9·4	8·4	−1·0	−0·2					
+0·1	+0·2	,, 9	9·1	8·3	−0·8	0·0	Oct. 7	7·5	7·4	−0·1	+0·4
−0·6	−0·5	,, 16	9·0	8·3	−0·7	+0·1	,, 14	7·7	7·3	−0·4	+0·1
−0·6	−0·5	,, 23	8·0	8·2	+0·2	+1·0	,, 21	7·5	7·3	−0·2	+0·3
+0·3	+0·4	,, 30	8·2	8·1	−0·1	+0·7	,, 28	7·5	7·3	−0·2	+0·3
0	+0·1	Nov. 6	8·5	8·1	−0·4	+0·4	Nov. 4	7·8	7·4	−0·4	+0·1
0	+0·1	,, 13	7·7	8·0	+0·3	+1·1	,, 11	8·5	7·4	−1·1	−0·6
0	+0·1	,, 20	9·0	8·0	−1·0	−0·2	,, 18	7·5	7·4	−0·1	+0·4
−0·2	−0·1	,, 27	9·0	7·9	−1·1	−0·3	,, 25	8·9	7·4	−1·5	−1·0
−0·2	−0·1	Dec. 4	8·4	7·8	−0·6	+0·2	Dec. 2	7·9	7·4	−0·5	0
−0·1	0	,, 11	8·0	7·7	−0·3	+0·5	,, 9	8·5	7·3	−1·2	−0·7
0	+0·1	,, 18	8·0	7·6	−0·4	+0·4	,, 16	6·9	7·2	+0·3	+0·8
+1·0	+1·1	,, 25	7·9	7·5	−0·4	+0·4	,, 23	7·9	7·1	−0·8	−0·3
							,, 30	7·6	7·0	−0·6	−0·1
−0·11	±0.45	Means ..	8·79	8·00	−0·79	±0·43	Means ...	7·81	7·32	−0·49	±0·38

from the observed absolute easterly declination (1 cm. 10′·28). The values so obtained of the base line of the declination magnetograph denote differences in column 4 would therefore represent (1) the instrumental and the site differences and (2) the probable errors of the absolute determinations. differences for each observation which are given in column 5 would represent the errors due to (2) (*vide* Introduction).

TABLE VIa—*Daily Means of Horizontal Force.*

1916.

36000 γ +

1916. Date.	January.	February.	March.	April	May.	June.	July.	August.	September.	October.	November.	December.
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 ..	881	879	886	852	861	861	846	**896**	857	846	874	**836**
2 ..	885	878	**897**	871	865	873	869	856	854	860	**884**	843
3 ..	881	882	870	876	859	874	866	863	**841**	861	856	851
4 ..	875	883	867	882	876	879	869	877	846	878	846	857
5 ..	867	875	866	**894**	879	879	870	878	841	875	**840**	866
6 ..	**887**	877	869	879	854	876	870	848	859	852	843	865
7 ..	876	**891**	855	885	859	875	873	862	855	**822**	849	870
8 ..	883	874	825	867	858	866	862	862	848	834	859	862
9 ..	884	878	**804**	875	872	865	**838**	869	861	847	862	866
10 ..	876	881	835	882	878	877	856	870	881	857	858	866
11 ..	848	880	868	882	862	884	859	879	849	846	861	871
12 ..	849	878	867	883	865	878	865	881	847	847	848	869
13 ..	**846**	880	873	889	867	872	869	879	853	828	861	872
14 ..	854	880	875	890	869	881	873	869	863	834	867	873
15 ..	860	883	871	858	876	877	878	875	857	850	873	861
16 ..	863	890	875	864	879	885	883	886	855	861	875	858
17 ..	866	885	827	872	873	887	871	883	841	866	879	857
18 ..	878	869	843	855	877	888	871	893	852	873	868	866
19 ..	883	**871**	853	880	880	877	876	879	861	882	869	870
20 ..	869	878	859	891	**887**	866	875	864	865	877	870	865
21 ..	870	886	861	880	853	867	878	868	880	867	872	875
22 ..	864	874	869	883	842	**860**	**889**	856	**886**	874	871	881
23 ..	853	876	871	877	849	866	874	845	872	870	861	889
24 ..	866	874	849	888	850	886	871	841	871	872	870	**894**
25 ..	855	880	856	840	864	889	871	863	873	869	877	883
26 ..	867	886	856	835	866	882	869	849	871	880	879	886
27 ..	871	880	874	841	869	885	878	**779**	854	883	873	863
28 ..	878	879	893	836	874	884	872	827	863	**887**	861	868
29 ..	874	880	830	**821**	882	**892**	865	840	879	883	863	873
30 ..	881		831	861	865	876	881	845	861	869	844	867
31 ..	878		839		**840**		883	849		870		871
Monthly Mean ..	869·9	879·6	858·5	869·6	866·1	876·9	870·0	862·3	859·9	861·9	863·8	867·5

In the derivation of the daily means of Horizontal Force, the calculated values of the base line of the Horizontal Force Magnetograph given in column 2, Tables IV*a* to IV*e*, have been used. These calculated values, reduced to a uniform temperature as referred to in the footnote to Table IV*a* are corrected to the mean temperature of the day, which thus gives the correct base line value for the day. The daily mean ordinate derived from twenty-four hourly tabulations of the H. F. Magnetograms, corrected for progressive change by $\frac{1}{24}$ of the difference between the *initial* and the *terminal* hour (10*h* to 10*h*) are next converted into C. G. S. unit by means of the scale co-efficients for 1 c. m. of ordinate. And finally these converted ordinates added to the corrected base line values referred to above give the absolute values of the daily means of Horizontal Force.

TABLE VIb.—*Daily Means of Horizontal Force.*

1917.

36000 γ +

Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 ..	863	872	880	885	869	837	902	848	897	857	869	880
2 ..	868	873	888	873	**826**	890	903	871	874	868	883	872
3 ..	870	876	**898**	870	850	892	893	892	860	853	884	875
4 ..	**776**	881	893	874	859	868	897	879	873	857	891	873
5 ..	779	870	855	864	864	**884**	894	886	**838**	882	901	878
6 ..	829	877	866	861	876	907	899	**908**	847	875	899	880
7 ..	833	877	873	870	877	887	910	894	863	887	903	883
8 ..	834	868	858	870	886	866	898	883	870	882	900	872
9 ..	843	879	872	**847**	886	890	904	**776**	857	885	904	876
10 ..	849	870	876	882	887	891	**916**	802	874	888	894	888
11 ..	853	870	884	891	883	897	895	833	887	875	**906**	**905**
12 ..	855	883	874	890	893	895	888	865	889	887	864	886
13 ..	847	880	**853**	890	881	884	839	844	881	893	875	886
14 ..	853	884	879	898	874	884	865	781	890	868	865	893
15 ..	867	**825**	885	889	883	890	875	803	890	879	877	894
16 ..	860	845	877	856	860	892	880	852	894	887	886	**813**
17 ..	855	861	884	872	873	887	885	849	886	881	884	823
18 ..	864	848	877	877	891	888	889	860	886	896	879	839
19 ..	**874**	869	890	877	889	899	891	866	863	**903**	866	854
20 ..	866	866	897	890	888	909	901	873	855	901	874	868
21 ..	865	880	886	895	894	908	890	782	866	901	891	867
22 ..	861	881	883	893	899	**918**	880	798	880	899	894	871
23 ..	864	881	882	891	894	879	871	824	891	901	902	875
24 ..	870	876	895	893	897	**854**	877	854	891	884	886	887
25 ..	868	881	871	**902**	**903**	866	890	881	900	**826**	874	872
26 ..	862	877	887	856	894	882	890	833	903	874	**863**	863
27 ..	866	**887**	884	877	**879**	882	912	*864	895	882	867	870
28 ..	874	882	892	895	873	888	885	875	**906**	846	874	888
29 ..	871		891	883	876	882	835	886	893	828	879	890
30 ..	870		897	868	878	898	867	884	853	854	*875	894
31 ..	866		897		883		**821**	879		872		893
Monthly mean .	854·0	872·1	881·4	879·3	879·5	888·1	884·6	852·4	878·4	876·5	883·5	874·5

TABLE VIc.—*Daily Means of Horizontal Force.*

1918.

36000 γ +

Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 ..	897	870	889	**912**	875	905	902	**905**	867	886	889	847
2 ..	897	*882	893	904	888	913	906	893	884	891	890	871
3 ..	890	890	874	907	898	916	896	881	879	886	900	849
4 ..	889	892	892	889	878	**918**	901	897	876	891	908	871
5 ..	888	888	904	859	879	915	903	894	883	895	907	890
6 ..	884	867	905	**835**	897	909	907	893	886	897	912	**904**
7 ..	890	882	881	859	899	911	915	896	893	902	**913**	885
8 ..	893	892	**806**	879	905	915	895	889	880	860	909	**808**
9 ..	901	901	861	885	**913**	918	897	889	893	866	908	846
10 ..	895	890	870	895	913	**829**	904	902	901	883	895	853
11 ..	895	878	869	858	902	864	887	891	907	900	885	868
12 ..	877	**831**	851	865	895	861	900	897	**912**	904	*856	876
13 ..	876	840	878	884	903	878	901	899	894	915	*867	877
14 ..	881	859	894	891	896	866	910	896	889	**920**	874	875
15 ..	887	875	894	901	892	882	896	878	895	886	868	885
16 ..	891	879	865	899	871	882	902	**840**	887	**763**	866	885
17 ..	892	892	884	904	**822**	885	912	877	869	833	878	892
18 ..	899	893	889	896	859	889	900	885	864	850	885	903
19 ..	**903**	897	895	864	866	892	909	899	846	864	887	859
20 ..	903	903	895	894	876	896	912	883	855	857	904	875
21 ..	892	892	885	903	880	899	911	895	**799**	872	893	876
22 ..	895	902	884	894	886	903	915	896	849	881	898	891
23 ..	901	900	890	883	889	904	**919**	900	865	871	**801**	881
24 ..	895	884	891	891	901	901	917	877	870	876	843	895
25 ..	896	903	903	893	891	916	891	869	877	883	869	826
26 ..	900	**907**	**907**	853	899	893	889	880	888	891	885	841
27 ..	890	902	889	889	904	899	890	865	880	902	885	855
28 ..	903	872	891	901	905	909	887	877	881	887	891	875
29 ..	881		891	903	889	909	**879**	888	888	893	883	879
30 ..	854		901	869	884	**907**	885	897	884	905	851	900
31 ..	**847**		900		893		895	895		860		892
Monthly mean.	889·7	884·4	884·5	885·3	888·6	896·2	901·1	887·8	878·0	879·7	882·7	871·9

*Owing to extreme faintness in the curves for these two days the hourly ordinates were determined from lines traced in pencil on the original curves and daily means found therefrom.

TABLE VId.—*Daily Means of Horizontal Force.*

1919.

36000 γ +

1919. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 ..	892	873	868	912	916	933	**941**	915	919	862	906	923
2 ..	901	888	881	916	862	934	939	921	908	**844**	915	928
3 ..	887	889	884	**929**	**834**	935	919	917	873	856	**930**	929
4 ..	**834**	891	892	901	874	943	920	922	880	874	**860**	915
5 ..	859	883	904	913	865	937	921	910	894	857	879	915
6 ..	866	891	898	**907**	883	938	931	924	858	871	899	919
7 ..	876	905	886	877	900	934	928	916	888	892	914	928
8 ..	887	902	891	878	908	**947**	913	909	900	903	929	927
9 ..	890	902	907	890	911	915	912	921	883	892	926	925
10 ..	899	898	919	896	896	902	916	**934**	890	901	930	933
11 ..	902	906	**923**	889	913	905	920	**779**	905	917	909	919
12 ..	903	919	899	888	909	**896**	918	831	**920**	**921**	889	916
13 ..	889	884	907	917	875	906	913	843	911	919	919	921
14 ..	875	879	869	924	887	919	919	879	893	919	926	895
15 ..	890	886	894	926	898	924	928	891	890	913	921	**818**
16 ..	868	881	877	893	897	922	931	886	892	869	902	881
17 ..	869	894	884	**858**	887	916	899	898	909	869	896	905
18 ..	875	895	909	873	880	915	893	899	904	877	903	912
19 ..	878	906	890	883	900	923	908	852	**827**	893	912	908
20 ..	884	**917**	**857**	887	893	935	916	876	830	909	926	909
21 ..	892	876	864	878	906	926	921	897	863	921	928	900
22 ..	891	878	859	886	895	922	908	896	886	894	888	904
23 ..	891	**864**	868	890	884	898	**881**	897	910	871	907	903
24 ..	892	878	883	905	858	899	900	911	886	903	916	898
25 ..	897	888	888	908	898	923	910	908	891	911	923	902
26 ..	902	891	906	910	869	903	918	880	898	913	911	910
27 ..	**909**	893	910	916	887	925	919	888	905	889	922	918
28 ..	903	879	882	917	902	928	929	902	913	885	923	911
29 ..	887		890	907	914	914	923	896	907	881	926	925
30 ..	884		892	913	**927**	924	929	915	917	899	911	922
31 ..	890		899		920		927	913		883		**935**
Monthly Mean.	885·9	890·1	889·7	899·6	891·9	921·4	917·7	894·4	891·7	890·6	911·5	911·6

TABLE VIe.—*Daily Means of Horizontal Force.*

1920.

36000 γ +

1920. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 ..	934	919	918	917	**874**	938	932	939	925	890	950	939
2 ..	913	918	931	922	902	933	936	942	938	899	917	932
3 ..	916	923	**942**	914	900	937	944	954	908	912	929	925
4 ..	917	931	901	911	914	930	949	927	903	902	909	929
5 ..	925	936	845	893	925	933	**955**	933	921	902	915	924
6 ..	926	**945**	901	900	927	919	937	945	932	907	**897**	923
7 ..	909	918	899	906	927	930	932	**960**	**946**	898	915	921
8 ..	**938**	921	905	905	941	940	920	928	917	916	926	922
9 ..	919	927	915	913	909	937	931	921	904	938	931	925
10 ..	904	928	929	907	918	**885**	941	925	916	**874**	937	935
11 ..	916	941	926	916	932	898	948	929	916	902	944	944
12 ..	908	927	921	921	943	917	920	931	932	915	944	957
13 ..	913	923	925	**929**	925	923	934	911	937	926	937	940
14 ..	929	913	889	920	896	929	942	920	938	931	942	935
15 ..	924	933	893	**837**	887	941	926	931	921	923	926	940
16 ..	922	895	915	882	903	939	921	932	926	942	939	937
17 ..	910	905	927	879	914	946	932	944	909	931	915	949
18 ..	916	913	915	874	914	940	**914**	940	919	934	919	947
19 ..	923	915	926	880	928	939	924	930	924	925	920	947
20 ..	931	929	924	852	935	936	930	940	923	943	943	956
21 ..	**903**	931	938	885	930	940	942	**903**	932	953	933	950
22 ..	914	932	**726**	908	937	939	936	908	916	**955**	933	953
23 ..	919	932	757	909	**944**	941	921	922	915	939	942	**962**
24 ..	916	**886**	824	887	935	929	925	927	921	926	**945**	951
25 ..	921	899	859	905	**929**	938	929	940	939	919	945	937
26 ..	919	908	884	915	933	937	926	949	946	925	929	**882**
27 ..	929	910	882	917	928	941	929	945	938	930	916	918
28 ..	924	911	880	925	920	**950**	934	949	882	927	929	931
29 ..	927	915	892	921	916	939	945	952	**852**	919	932	938
30 ..	914		907	903	920	941	951	920	877	939	933	951
31 ..	915		916		924		945	938		937		938
Monthly Mean.	919·2	920·1	894·0	901·8	920·3	932·8	933·9	933·4	919·1	921·9	929·2	936·7

TABLE VIIa.—*Daily Means of Declination (Easterly).*

1916.

0° +

1916. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	Month.											
	′	′	′	′	′	′	′	′	′	′	′	′
1 ..	38·4	38·0	37·7	**38·6**	37·8	**37·1**	36·9	36·2	36·2	35·8	35·3	**35·6**
2 ..	38·1	**38·4**	37·5	38·2	37·2	36·9	36·7	36·5	36·0	35·8	35·6	35·3
3 ..	38·5	38·0	38·1	38·3	37·6	37·0	36·6	36·2	36·3	35·7	**35·7**	35·5
4 ..	38·6	38·1	38·1	37·8	37·5	36·8	36·3	36·2	36·0	35·5	35·3	35·3
5 ..	38·8	38·1	38·0	37·8	37·4	37·0	36·6	36·3	**36·6**	35·4	35·2	35·0
6 ..	38·4	38·4	38·1	37·9	37·4	36·7	36·2	36·9	36·3	36·3	35·6	34·9
7 ..	38·7	38·2	38·2	37·6	37·3	36·8	36·2	36·9	36·4	36·3	35·6	34·9
8 ..	38·5	38·0	38·3	37·9	37·3	36·6	36·9	36·6	35·9	36·2	35·3	35·2
9 ..	38·6	38·0	38·8	37·8	**38·8**	36·8	36·7	36·8	35·9	36·0	35·4	35·1
10 ..	38·4	38·2	38·3	**37·2**	37·2	36·4	36·5	36·4	**35·2**	35·8	35·5	35·0
11 ..	**39·4**	38·4	37·8	37·5	37·0	**36·1**	36·5	36·4	36·0	35·8	35·5	34·9
12 ..	38·7	38·3	37·9	37·6	37·3	36·5	36·7	36·2	35·9	36·0	35·7	35·0
13 ..	39·2	38·1	37·9	37·8	37·4	36·6	36·7	35·9	36·1	**36·7**	35·2	34·9
14 ..	38·7	38·2	37·9	37 5	37·2	36·2	36·6	36·5	35·7	36·0	35·2	35·0
15 ..	38·9	38·2	37·7	37·5	37·2	36·4	36·3	36·0	35·6	35·6	35·0	35·4
16 ..	38·6	38·2	37·9	37·9	37·3	36·5	**36·1**	35·9	35·9	35·6	35·3	35·3
17 ..	38·4	38·1	38·8	37·8	37·1	36·3	36·5	35·6	36·4	35·3	35·3	35·1
18 ..	38·5	38·4	38·5	38·2	37·2	36·5	36·8	**35·5**	35·9	35·3	35·3	35·1
19 ..	38·4	38·0	38·1	37·6	36·9	36·3	36·6	35·7	35·7	35·1	35·2	34·7
20 ..	38·3	38·3	38·1	37·5	36·9	36·5	36·8	36·1	35·5	35·2	35·7	34·9
21 ..	38·6	38·1	38·3	37·3	**37·9**	37·0	36·6	36·2	35·4	35·3	35·2	34·7
22 ..	38·6	38·1	38·3	37·8	37·5	36·8	36·7	36·7	35·4	35·2	35·2	34·6
23 ..	38·8	38·3	38·0	37·5	37·2	36·5	36·6	37·0	35·7	35·5	35·3	34·5
24 ..	38·6	38·3	38·3	37·6	37·4	36·5	36·5	36·4	35·6	35·5	35·2	**34·4**
25 ..	38·8	38·1	38·4	38·6	37·3	36·2	36·6	36·3	35·4	35·3	35·1	34·8
26 ..	38·6	38·0	38·3	38·3	37·3	36·3	36·6	36·9	35·3	35·5	35·0	34·7
27 ..	38·6	**37·9**	38·3	38·6	37·1	36·5	**37·0**	**37·7**	35·8	35·4	**34·7**	35·1
28 ..	38·4	38·0	**37·3**	38·3	37·2	36·4	36·4	37·0	35·8	**35·0**	35·1	35·0
29 ..	38·4	37·9	**39·2**	38·3	*	36·3	36·4	36·9	35·3	35·5	35·3	34·9
30 ..	**38·0**		38·2	38·1	*	36·3	36·2	36·5	35·8	35·7	35·7	34·9
31 ..	38·4		38·6		37·2		36·1	36·5		35·7		34·6
Monthly Mean ..	38·58	38·15	38·16	37·88	37·28	36·56	36·55	36·42	35·83	35·65	35·32	34·98

In the derivation of the daily means of declination, the calculated values of the base line of the Declination Magnetograph have been used. As referred to in the foot-note to Table V. these values are derived by taking overlapping means of values derived from five successive observations with instrument No. 7 and reducing them to the proper epoch; values for intermediate days being derived by simple interpolation. The daily mean ordinate derived from twenty-four hourly tabulations of the declination magnetograms and corrected for progressive change by $\frac{1}{24}$ of the difference between the initial and the terminal hour (10^h to 10^h) were next converted into arc by factor 10′·28 which is equal to 1 c.m. of ordinate on the photographic paper. And finally these converted ordinates added to the daily base line values referred to above gave the absolute values of the daily means of Declination.

* Rejected as the curve was lost owing to the stoppage of the recording cylinder.

TABLE VIIb—*Daily means of Declination (Easterly).*

1917.

0° +

1917. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	′	′	′	′	′	′	′	′	′	′	′	′
1 ..	34·5	34·3	34·4	33·6	33·3	32·8	32·5	32·5	31·6	31·4	30·7	30·2
2 ..	34·7	34·5	34·2	33·8	**33·8**	32·5	32·4	31·9	31·4	31·4	30·5	30·2
3 ..	34·4	34·1	34·1	**34·0**	33·8	32·2	32·5	31·9	31·9	31·3	30·5	**29·9**
4 ..	**36·0**	33·9	34·3	33·8	33·6	32·8	32·5	32·1	31·8	**31·7**	30·6	30·3
5 ..	35·7	34·5	34·8	34·0	33·3	32·7	32·3	32·0	**32·3**	31·4	30·1	30·3
6 ..	35·2	33·9	34·7	34·0	33·5	33·0	32·3	31·9	32·2	31·7	30·4	**30·7**
7 ..	34·7	34·2	34·6	33·8	33·1	32·9	32·6	32·1	31·6	31·1	30·4	30·3
8 ..	35·1	34·4	**35·2**	33·9	33·1	32·5	32·3	31·6	31·5	31·3	30·3	30·3
9 ..	34·9	34·1	34·5	33·8	32·8	32·8	32·5	**33·6**	31·7	31·1	30·2	30·3
10 ..	34·7	34·1	34·6	33·7	33·1	32·5	32·2	32·6	31·5	31·3	30·4	30·1
11 ..	34·6	34·2	34·2	33·2	33·0	32·0	32·9	32·6	31·5	31·2	30·3	29·9
12 ..	34·5	34·2	34·6	33·3	**32·5**	32·2	32·5	32·2	31·8	**31·0**	**30·9**	30·1
13 ..	34·7	34·1	35·0	33·4	33·1	32·4	**33·1**	33·2	31·7	30·7	30·4	30·0
14 ..	34·9	34·3	34·3	33·6	33·3	32·3	32·6	33·4	31·7	31·3	30·6	29·9
15 ..	34·6	**34·9**	34·2	33·6	32·9	32·3	32·4	33·1	31·7	31·0	30·1	30·2
16 ..	34·9	34·8	34·5	34·0	32·7	32·3	32·5	32·5	31·5	30·9	30·1	30·7
17 ..	34·4	34·7	34·4	33·6	32·9	31·9	32·4	32·1	31·6	31·0	30·4	30·7
18 ..	34·5	34·7	34·6	33·3	32·7	32·5	32·4	32·3	31·7	30·6	30·2	30·7
19 ..	34·1	34·3	34·5	33·8	32·9	32·1	32·6	32·1	31·8	30·9	30·6	30·3
20 ..	34·5	34·3	33·7	33·4	33·0	31·9	32·1	31·9	31·7	30·8	30·2	30·6
21 ..	34·2	34·2	33·9	33·2	33·1	32·0	32·2	32·8	32·0	30·5	30·0	30·5
22 ..	34·3	34·4	**33·4**	33·4	32·6	**31·7**	32·1	32·9	31·5	30·7	30·1	30·1
23 ..	34·4	34·4	34·0	33·3	33·0	32·6	32·3	32·6	31·6	**30·4**	**29·9**	30·1
24 ..	34·1	34·6	33·8	33·3	33·0	**33·6**	32·1	32·0	31·5	30·9	30·3	30·3
25 ..	34·3	34·3	34·6	33·4	32·7	32·7	32·3	31·6	31·4	31·5	30·1	30·2
26 ..	34·7	34·1	34·1	33·4	32·7	32·1	32·4	31·7	31·5	31·0	30·3	30·4
27 ..	34·4	**33·8**	34·1	33·3	32·7	32·4	**31·8**	31·9	31·7	31·1	30·4	30·2
28 ..	34·1	34·4	33·9	33·0	33·1	32·5	32·0	**31·4**	31·5	31·5	30·2	30·0
29 ..	34·3		33·8	**32·7**	33·0	33·1	32·7	31·7	**31·0**	31·6	30·0	29·9
30 ..	**34·0**		33·9	33·3	33·1	32·5	32·7	31·9	31·4	30·9	30·0	30·1
31 ..	34·2		33·4		32·8		32·6	31·8		30·7		29·9
Monthly Mean.	34·60	34·31	34·27	33·53	33·04	32 46	32·41	32·25	31·64	31·09	30·31	30·24

TABLE VIIc—*Daily Means of Declination (Easterly).*

1918.

0° +

1918. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	′	′	′	′	′	′	′	′	′	′	′	′
1 ..	29·8	29·9	30·1	29·1	29·4	28·3	**27·6**	27·8	27·8	26·8	26·9	27·1
2 ..	29·7	29·9	30·0	**29·0**	29·1	28·1	27·8	28·1	27·8	26·8	27·0	26·7
3 ..	29·8	30·0	30·1	29·0	29·3	28·0	28·0	28·0	27·6	27·3	26·8	27·3
4 ..	29·7	29·7	29·8	29·7	29·2	28·0	28·3	27·8	27·0	26·9	26·8	26·6
5 ..	30·1	29·9	29·7	30·1	**29·5**	28·0	28·1	28·0	27·0	**26·6**	26·9	26·4
6 ..	30·0	30·5	29·7	30·3	28·7	28·2	28·4	27·9	27·4	26·8	26·7	26·4
7 ..	29·8	30·2	29·8	29·9	28·5	28·5	27·9	27·9	28·0	27·0	26·5	26·1
8 ..	29·9	30·1	**30·9**	29·7	28·7	28·5	28·4	27·5	27·9	27·4	26·8	**27·6**
9 ..	29·8	29·8	30·0	29·9	28·6	28·7	28·3	27·6	27·4	26·6	26·8	27·1
10 ..	29·7	30·0	30·2	30·0	28·9	**29·7**	28·3	**27·2**	27·1	27·0	26·9	26·9
11 ..	29·9	30·0	30·4	**30·5**	28·9	28·9	28·3	27·5	27·5	26·8	26·9	26·6
12 ..	**30·3**	**30·7**	30·5	29·9	28·4	29·3	28·0	27·4	27·2	27·0	**27·9**	26·7
13 ..	30·0	30·5	30·1	29·9	28·8	28·8	27·8	27·5	27·7	26·8	27·5	26·5
14 ..	30·2	30·4	29·7	29·6	28·4	28·7	27·8	27·9	27·6	26·6	26·8	26·6
15 ..	30·0	29·8	29·7	29·5	29·0	28·4	27·8	**28·5**	**26·8**	26·8	27·1	26·4
16 ..	30·1	30·1	30·3	29·2	28·8	28·7	27·8	28·5	27·5	**28·4**	27·2	26·5
17 ..	30·0	30·0	30·3	29·2	29·4	28·9	28·0	27·6	27·7	28·0	27·0	26·4
18 ..	29·9	29·7	30·1	29·2	29·5	28·7	28·0	27·7	27·2	27·5	26·9	26·3
19 ..	29·6	29·7	29·8	29·7	29·2	28·2	27·7	27·8	27·7	27·2	26·7	27·2
20 ..	29·7	**29·4**	29·6	29·4	29·0	28·3	28·1	27·5	27·5	27·3	**26·3**	26·6
21 ..	29·7	29·7	29·5	29·6	28·5	28·3	28·0	27·4	**28·2**	27·3	26·6	26·5
22 ..	29·7	29·9	29·7	29·5	28·6	28·3	28·1	27·6	27·3	26·9	26·8	26·3
23 ..	29·8	30·0	29·4	29·4	28·3	28·9	28·0	27·5	27·5	27·5	27·9	26·3
24 ..	29·9	30·1	29·5	29·6	28·4	28·2	28·3	27·8	27·6	27·5	26·9	26·4
25 ..	29·8	29·5	29·3	29·1	28·8	28·2	**28·7**	27·8	27·5	27·2	26·8	26·7
26 ..	29·5	29·5	**29·2**	29·7	28·8	28·3	27·9	27·8	27·9	26·9	26·7	26·8
27 ..	29·5	29·5	29·4	29·2	28·5	28·1	28·1	27·8	27·1	27·1	26·6	26·7
28 ..	**29·4**	30·1	29·4	29·6	**28·1**	**27·8**	28·4	27·3	27·2	27·2	26·4	26·6
29 ..	29·9		29·9	29·5	28·3	27·9	28·4	27·4	27·0	27·3	27·1	26·5
30 ..	30·0		29·5	29·3	28·4	27·8	28·1	27·4	26·9	26·7	26·6	26·2
31 ..	30·2		29·5		28·7		27·8	27·7		27·3		**26·0**
Monthly Mean.	29·85	29·95	29·84	29·58	28·81	28·44	28·07	27·71	27·46	27·11	26·89	26·61

TABLE VIId—*Daily Means of Declination (Easterly).*

1919.

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1919. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1 ..	26·1	26·1	26·3	25·5	24·7	**25·0**	23·7	24·0	23·6	23·8	23·0	22·4
2 ..	25·9	26·2	26·3	25·3	**25·9**	24·5	23·9	23·6	23·8	23·5	22·5	22·[illegible]
3 ..	26·4	**26·5**	26·2	25·3	25·9	24·4	23·9	23·[illegible]	24·1	**23·9**	22·5	22·[illegible]
4 ..	**26·9**	26·1	26·2	25·3	25·[illegible]	24·0	24·4	23·9	23·[illegible]	23·[illegible]	**23·4**	22·[illegible]
5 ..	26·8	25·[illegible]	25·8	25·5	25·6	24·6	24·4	23·8	23·[illegible]	23·[illegible]	23·0	22·[illegible]
6 ..	26·7	26·2	26·1	25·1	25·[illegible]	24·3	24·2	23·8	24·4	23·8	23·1	22·[illegible]
7 ..	26·4	26·1	26·2	25·5	25·7	24·1	23·[illegible]	24·3	23·8	23·3	23·0	22·7
8 ..	26·4	26·3	26·2	25·7	25·2	24·5	24·2	24·0	23·9	23·4	22·6	**22·4**
9 ..	26·2	25·8	25·9	25·7	24·7	24·8	24·4	23·9	24·2	23·2	22·5	22·4
10 ..	26·2	25·9	25·9	25·9	25·2	24·[illegible]	24·2	23·[illegible]	23·8	23·2	22·3	**22·2**
11 ..	26·1	26·2	25·8	**26·3**	25·0	24·3	24·0	**25·9**	23·[illegible]	22·9	22·[illegible]	22·4
12 ..	**25·7**	25·9	26·2	26·0	25·4	24·7	24·[illegible]	24·5	23·5	22·9	23·1	22·4
13 ..	26·7	26·0	25·9	25·3	25·4	24·8	24·[illegible]	25·0	23·5	23·0	22·[illegible]	22·4
14 ..	26·5	26·2	26·2	25·4	25·3	25·0	24·1	24·3	23·[illegible]	23·3	22·5	22·5
15 ..	26·4	26·0	25·9	25·2	24·9	24·5	23·9	24·0	23·8	23·2	22·2	**23·7**
16 ..	26·6	26·2	26·3	25·9	25·0	24·8	24·2	23·[illegible]	23·9	23·6	22·6	23·0
17 ..	26·9	25·9	26·0	26·0	25·4	24·4	24·[illegible]	23·[illegible]	23·5	23·3	22·[illegible]	22·4
18 ..	26·9	26·0	**25·5**	26·2	25·3	24·[illegible]	24·4	**23·3**	23·9	23·3	22·6	22·[illegible]
19 ..	26·7	25·8	26·0	25·8	24·9	24·5	24·4	24·1	**24·5**	23·1	22·[illegible]	22·[illegible]
20 ..	26·4	**25·4**	**26·5**	25·7	25·0	24·5	24·6	23·[illegible]	24·4	23·0	22·4	22·4
21 ..	26·4	25·9	26·0	25·9	25·1	24·8	24·2	23·9	24·1	**22·5**	**22·1**	22·9
22 ..	26·2	25·9	26·5	26·0	25·1	24·9	24·1	23·[illegible]	23·5	23·0	22·6	22·4
23 ..	26·4	26·5	26·1	25·5	24·9	24·9	**24·9**	24·3	23·[illegible]	23·1	22·3	22·5
24 ..	25·9	26·4	26·2	25·9	25·6	24·9	24·4	23·9	24·2	23·0	22·2	22·4
25 ..	26·3	26·1	25·8	25·2	25·0	24·0	24·2	23·9	23·5	23·0	22·2	22·5
26 ..	25·9	25·9	25·5	**24·8**	25·8	24·7	24·2	24·2	23·6	22·5	22·4	22·5
27 ..	26·2	25·7	26·2	24·9	25·2	24·4	24·1	23·8	23·2	22·7	22·2	22·9
28 ..	26·1	26·3	25·5	25·0	24·9	24·5	23·9	23·9	23·4	23·0	22·2	22·7
29 ..	26·4		25·5	25·5	25·1	**23·9**	**23·6**	23·8	**23·1**	23·2	22·2	22·6
30 ..	26·2		25·7	25·1	**24·5**	24·1	23·8	23·4	23·2	23·0	22·4	22·5
31 ..	25·8		25·7		24·5		23·8	23·5		23·1		22·2
Monthly Mean.	26·35	26·04	26·00	25·55	25·21	24·54	24·16	23·97	23·76	23·20	22·57	22·55

TABLE VIIe—*Daily Means of Declination (Easterly).*

1920.

0° +

1920. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1 ..	22·0	21·8	21·8	21·6	20·9	20·8	20·0	19·6	19·2	19·5	**19·1**	18·2
2 ..	**22·5**	21·8	21·[illegible]	21·1	20·9	20·5	19·[illegible]	19·6	19·2	19·4	19·0	18·6
3 ..	22·3	21·9	21·6	21·2	21·2	20·8	19·9	19·5	19·0	19·4	18·5	18·4
4 ..	22·4	21·6	22·6	21·[illegible]	**21·3**	20·6	19·[illegible]	19·5	19·2	19·4	18·[illegible]	18·3
5 ..	22·2	21·5	22·4	21·8	20·6	20·8	**20·1**	19·6	19·2	19·2	18·4	18·[illegible]
6 ..	22·5	21·4	21·[illegible]	21·5	21·1	20·5	19·9	19·[illegible]	19·0	19·[illegible]	19·0	18·6
7 ..	22·4	21·8	21·8	21·5	21·1	20·5	20·0	19·3	19·1	19·0	18·4	18·[illegible]
8 ..	22·3	21·9	21·9	21·[illegible]	20·9	20·8	20·1	19·6	19·5	19·2	18·6	18·[illegible]
9 ..	22·1	**21·2**	21·6	21·5	21·1	20·3	20·1	19·5	19·2	18·[illegible]	18·6	18·8
10 ..	22·3	21·4	21·9	21·5	20·9	**20·9**	19·8	19·6	19·0	**19·8**	18·3	18·4
11 ..	22·2	21·[illegible]	21·8	21·8	20·9	20·5	19·8	19·6	19·1	19·[illegible]	18·3	18·8
12 ..	22·5	21·5	21·[illegible]	21·3	21·0	20·8	20·0	19·[illegible]	18·8	19·6	18·4	18·3
13 ..	22·3	21·6	21·[illegible]	21·0	21·3	20·6	19·8	19·[illegible]	18·[illegible]	19·0	18·4	18·[illegible]
14 ..	22·1	21·8	22·[illegible]	21·4	21·0	20·6	19·[illegible]	**19·8**	19·0	18·6	**17·8**	18·6
15 ..	21·9	21·6	21·9	**22·7**	21·2	20·2	20·1	19·5	19·2	18·5	18·2	18·4
16 ..	22·4	21·6	21·[illegible]	22·0	21·2	20·4	19·8	19·6	19·[illegible]	18·5	18·1	18·4
17 ..	22·4	22·0	21·[illegible]	22·3	21·1	20·0	20·1	19·[illegible]	19·4	18·6	18·[illegible]	**17·9**
18 ..	22·1	21·6	21·[illegible]	22·1	21·1	20·1	19·8	19·[illegible]	19·1	18·6	18·4	18·3
19 ..	22·1	22·0	21·5	22·1	20·7	20·[illegible]	19·9	19·5	19·1	18·[illegible]	18·3	18·5
20 ..	**21·8**	21·9	21·5	22·[illegible]	20·[illegible]	20·1	19·[illegible]	19·4	19·4	**18·2**	18·2	18·0
21 ..	22·0	21·8	21·6	22·1	**20·5**	20·1	19·6	19·9	19·1	18·2	18·4	18·2
22 ..	22·2	21·4	**24·2**	21·8	20·6	**19·6**	19·[illegible]	19·[illegible]	19·1	18·4	18·[illegible]	18·2
23 ..	22·0	21·8	23·2	22·0	20·6	19·9	19·[illegible]	19·5	19·[illegible]	18·6	18·2	18·6
24 ..	22·1	**22·6**	22·8	21·2	20·[illegible]	20·1	19·9	19·5	19·0	18·9	18·2	18·3
25 ..	21·8	22·0	22·[illegible]	21·2	20·8	20·[illegible]	19·8	19·4	18·8	19·1	18·1	18·0
26 ..	22·1	22·0	21·8	21·1	20·[illegible]	19·9	19·9	19·3	**18·[illegible]**	18·8	18·2	**19·1**
27 ..	21·9	21·9	22·1	21·1	21·2	20·[illegible]	19·8	**18·9**	19·[illegible]	18·8	18·5	18·7
28 ..	22·1	21·6	22·1	21·2	21·0	19·[illegible]	19·6	19·2	20·[illegible]	18·9	18·2	18·5
29 ..	21·8	21·6	21·6	21·0	20·9	19·9	19·6	18·9	**20·2**	19·0	18·2	18·3
30 ..	22·1		21·9	**20·8**	21·0	20·2	**19·5**	**19·5**	19·8	**18·4**	18·3	18·2
31 ..	22·1		**21·3**		21·1		19·[illegible]	19·2		18·[illegible]		18·2
Monthly Mean.	22·16	21·73	21·97	21·57	20·94	20·20	19·83	19·49	19·18	18·91	18·41	18·41

TABLE VIII.—*Monthly means of the magnetic elements determined from the absolute observations of Horizontal Force, Declination and Inclination and reduced to the mean monthly tabulations of the magnetograms (derived from observations with Standard Instruments).*

Horizontal Force (Instrument No. 7).

36000 γ +

Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual Means.
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1916 ..	872·3	878·1	858·1	880·9	866·6	876·2	870·9	861·2	880·6	860·2	864·2	867·4	867·1
1917 ..	853·3	873·4	881·0	881·1	878·7	887·2	885·9	852·6	877·1	877·0	882·2	874·6	875·3
1918 ..	889·0	885·9	883·8	884·8	880·6	895·0	901·0	885·9	878·8	879·7	880·5	872·7	885·7
1919 ..	887·5	887·7	889·8	899·1	892·6	923·0	917·7	894·1	890·8	892·1	908·8	911·3	899·5
1920 ..	918·8	923·2	893·2	900·8	919·3	933·3	932·5	934·1	919·2	921·8	929·6	935·2	921·7

Easterly Declination (Instrument No. 7).

0°+

	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″
1916 ..	38 33	38 10	37 57	38 5	37 21	36 30	36 39	36 21	35 49	35 42	35 14	35 1	36 47
1917 ..	34 37	34 13	34 19	33 29	33 2	32 34	32 23	32 13	31 41	31 6	30 19	30 17	32 31
1918 ..	29 48	29 54	29 45	29 46	28 42	28 28	28 0	27 44	27 27	27 9	26 52	26 34	28 21
1919 ..	26 26	26 54	26 6	25 21	25 13	24 37	24 10	23 55	23 49	23 10	22 35	22 32	24 29
1920 ..	22 13	21 42	21 54	21 33	21 3	20 22	19 47	19 33	19 5	18 57	18 23	18 24	20 15

Vertical Force (Inductor No. 41).

16000 γ +

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1916 ..	745·9	750·1	761·7	767·8	779·8	784·8	798·0	798·8	810·4	816·4	827·9	835·7	789·8
1917 ..	844·1	847·2	851·9	861·4	867·6	878·5	892·6	892·8	902·9	899·6	905·5	917·8	880·1
1918 ..	937·5	942·0	937·4	951·4	973·2	980·3	989·7	995·0	995·3	1003·6	1021·5	1021·0	979·0
1919 ..	1026·2	1031·0	1045·6	1045·6	1060·1	1067·8	1073·8	1077·2	1080·9	1091·1	1093·5	1116·9	1067·5
1920 ..	1112·1	1121·8	1128·4	1129·6	1144·1	1146·7	1156·8	1152·6	1163·5	1170·7	1171·0	1170·3	1147·3

Inclination (Inductor No. 41).

	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
1916 ..	24 25·5	24 25·7	24 27·3	24 27·3	24 28·4	24 28·4	24 29·6	24 30·0	24 30·9	24 31·4	24 32·2	24 32·6	24 29·1
1917 ..	33·8	33·3	33·4	34·1	34·7	35·2	36·4	37·6	37·4	37·2	37·5	38·7	35·8
1918 ..	39·7	40·2	39·9	40·9	42·4	42·8	43·3	44·3	44·5	45·1	46·5	46·7	43·0
1919 ..	46·6	47·0	48·0	47·7	49·0	48·5	49·2	50·3	50·7	51·4	51·0	52·7	49·3
1920 ..	52·1	52·7	54·2	54·1	54·5	54·2	55·0	54·6	56·0	56·5	56·2	55·9	54·7

Means given in this table are derived from observations with the Observatory Standard instruments which are Instrument No. 7 for Horizontal Force and Declination and Inductor No. 41 by Schulze for Vertical Force and Inclination. These observations are printed in Tables Ia, IIa and IIIa for each year.

They are derived by the usual method which consists in correcting the mean monthly observed absolute values by the difference between the mean ordinate at the time of the absolute determinations and the mean monthly ordinate derived from twenty-four hourly tabulations. The small differences noted between these means and those given at the foot of Tables VI and VII are due to the difference in the process adopted for the derivation of the latter (*vide* footnotes, Tables Va and VIIa).

TABLE VIIIa.—*Monthly means of the magnetic elements determined from the absolute observations of Horizontal Force, Declination and Inclination and reduced to the mean monthly tabulations of the magnetograms (derived from supplementary observations with auxiliary instruments).*

Horizontal Force (Instrument No. 3).

36000 γ +

Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual Means.
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1916 ..	876·9	881·6	858·2	879·0	880·4	888·2	882·5	878·0	877·0	873·3	879·0	870·4	877·8
1917 ..	867·5	882·8	877·5	856·8	869·8	866·9	858·6	804·2	835·8	856·1	858·7	866·3	858·4
1918 ..	903·9	897·6	899·0	897·7	912·3	901·3	900·8	892·5	884·9	876·8	887·8	875·8	894·2
1919 ..	891·1	889·8	881·4	899·9	895·0	912·7	909·7	888·2	883·7	892·1	914·9	908·8	897·3
1920 ..	916·8	921·2	892·5	906·8	940·9	944·4	951·3	951·5	945·5	942·4	945·7	953·6	934·4

Easterly Declination (Instrument No. 3).

0°+

	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″
1916 ..	38 26	37 36	37 28	37 48	37 44	37 4	36 39	36 25	36 1	35 48	35 32	34 57	36 47
1917 ..	34 19	34 2	33 39	32 43	32 27	31 54	31 36	31 42	30 53	30 33	29 42	29 56	31 57
1918 ..	29 44	29 23	30 13	30 4	29 39	27 18	27 40	27 53	27 17	26 57	26 46	26 50	28 19
1919 ..	25 37	24 59	25 3	24 10	24 17	23 48	23 48	23 48	23 16	22 46	22 2	22 9	23 43
1920 ..	21 15	21 46	21 27	20 52	20 3	20 22	19 18	19 12	18 46	18 43	17 38	17 50	19 46

Vertical Force (Inductor No. 108).

16000 γ +

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1916 ..	762·2	765·7	784·8	784·4	795·4	803·0	808·5	811·8	824·6	826·5	842·2	858·7	807·3
1917 ..	866·4	874·6	878·4	886·7	900·9	910·2	910·8	917·9	922·8	926·9	932·1	938·0	905·5
1918 ..	946·0	958·0	968·4	971·9	981·2	992·9	1000·4	1001·8	1004·9	1008·4	1023·1	1025·1	990·2
1919 ..	1036·7	1028·3	1036·8	1040·6	1058·3	1078·4	1064·3	1067·0	1078·9	1103·7	1107·4	1110·1	1067·5
1920 ..	1124·9	1125·6	1132·7	1135·0	1145·5	1139·1	1147·7	1166·1	1173·4	1187·6	1185·7	1193·2	1154·7

Inclination (Inductor No. 108).

	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
1916 ..	24 26·8	24 26·9	24 29·0	24 28·6	24 29·6	24 29·8	24 30·4	24 31·0	24 32·8	24 33·0	24 33·3	24 34·4	24 30·5
1917 ..	35·5	35·4	35·5	36·1	37·3	37·7	37·8	39·5	39·0	39·3	39·6	40·3	37·7
1918 ..	40·3	41·4	42·3	42·5	43·1	43·7	44·1	44·8	45·3	45·5	46·6	47·0	43·9
1919 ..	47·4	46·7	47·3	47·3	48·9	49·3	48·5	49·5	50·5	52·4	52·1	52·2	49·3
1920 ..	53·1	53·0	54·6	54·5	54·6	53·6	54·3	55·7	56·8	57·7	57·3	57·7	55·2

Means given in the table are derived in the same way as in Table VIIIa but from supplementary observations with auxiliary instruments which are Instrument No. 3 for Horizontal Force and Declination and Inductor No. 108 by Otto Toepfer for Vertical Force and inclination. These supplementary observations are printed in Tables Ib, IIb and IIIb for each year.

For the differences between the results of the auxiliary and the Standard Instruments and their behaviour, *vide* Introduction.

TABLE IX*a*.—*Showing the magnetic character of each day during the year 1916.*

1916. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1 ..	C	C	C	S	S	S	M	C	C	S	C	S
2 ..	C	C	C	C	S	C	S	M	S	S	S	S
3 ..	C	C	S	C	S	C	S	S	S	S	S	S
4 ..	S	C	S	C	C	C	S	C	S	C	S	S
5 ..	C	S	C	C	S	C	S	S	S	S	S	C
6 ..	C	C	S	S	S	S	S	S	S	M	S	C
7 ..	S	C	S	S	S	S	C	S	S	S	S	C
8 ..	C	S	C	S	C	S	S	S	S	S	S	S
9 ..	S	S	M	S	S	S	S	S	C	S	S	S
10 ..	S	C	M	C	S	C	S	S	S	S	S	C
11 ..	M	C	S	C	S	S	S	C	S	S	C	C
12 ..	M	S	S	C	S	S	S	S	S	S	S	S
13 ..	S	S	C	C	C	S	C	C	S	S	S	S
14 ..	S	S	C	S	C	C	C	S	C	S	S	S
15 ..	C	S	C	S	C	C	C	C	S	C	S	S
16 ..	C	C	C	S	S	C	C	C	S	C	S	S
17 ..	C	S	S	S	S	S	S	C	S	C	C	S
18 ..	C	S	S	S	C	S	S	C	S	C	S	S
19 ..	C	S	S	S	S	S	S	S	C	S	S	C
20 ..	S	S	S	S	S	S	C	S	C	S	S	C
21 ..	S	S	S	S	S	S	C	S	C	S	C	C
22 ..	S	S	C	S	S	S	C	S	S	S	S	C
23 ..	S	C	C	C	S	S	S	S	S	S	C	C
24 ..	S	S	S	C	S	C	C	S	S	S	C	S
25 ..	S	C	S	M	S	S	C	C	S	S	S	S
26 ..	S	S	S	S	S	S	C	S	S	C	S	S
27 ..	C	S	C	S	C	S	C	G	S	C	S	S
28 ..	C	S	S	S	S	S	C	S	S	C	S	S
29 ..	S	C	M	M	S	C	C	S	C	S	S	S
30 ..	C		S	S	S	S	C	S	M	S	S	S
31 ..	C		S		S		S	S		C		S
Total number of days in each class.												
Calm ..	15	12	10	10	7	10	15	9	7	9	6	10
Small ..	14	17	17	18	24	20	15	20	22	21	24	21
Moderate ..	2	0	3	2	0	0	1	1	1	1	0	0
Great ..	0	0	1	0	0	0	0	1	0	0	0	0
Very great ..	0	0	0	0	0	0	0	0	0	0	0	0
Sum ..	31	29	31	30	31	30	31	31	30	31	30	31
Selected quiet days.												
	1	3	2	5	4	2	7	4	1	4	1	6
	8	7	13	11	14	5	13	11	9	15	11	10
	18	11	16	13	15	16	15	16	19	16	17	11
	19	16	23	23	18	24	20	17	20	17	23	22
	30	29	27	24	27	29	25	25	29	27	24	23
Mean ..	15·2	13·2	16·2	15·2	15·6	15·2	16·0	14·6	15·6	15·8	15·2	14·4

C = Calm ; S = Small ; M = Moderate ; G = Great ; V. G. = Very Great.
Disturbances are determined from the Horizontal Force traces.
Days are reckoned from local midnight to midnight.

TABLE IXb.—*Showing the magnetic character of each day during the year* 1917.

1917. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	S	C	S	C	S	C	C	S	C	S	S	C
2	C	C	C	S	S	C	S	C	S	S	C	S
3	C	C	S	S	S	C	S	C	S	S	C	S
4	G	C	S	S	S	S	S	C	S	S	C	S
5	S	S	S	S	S	C	C	C	M	S	C	S
6	S	S	S	S	S	S	S	S	S	S	C	S
7	S	S	S	S	S	S	S	S	C	S	C	S
8	S	S	C	S	S	S	S	G	C	S	C	S
9	S	S	S	S	S	S	S	M	C	S	C	S
10	S	S	S	C	C	S	S	S	C	S	C	S
11	S	S	C	S	C	S	S	C	C	S	C	S
12	S	S	C	S	C	S	S	C	C	S	C	S
13	S	S	C	S	C	S	S	S	C	S	C	S
14	S	C	C	S	C	S	S	S	C	S	C	S
15	S	C	S	M	C	S	S	S	C	S	C	S
16	S	C	S	S	C	S	S	S	C	S	C	S
17	S	C	S	S	C	S	S	S	C	S	C	S
18	S	C	S	S	C	S	S	S	C	S	C	S
19	S	S	S	S	C	S	S	S	C	S	C	S
20	S	S	S	M	C	S	S	S	C	S	C	S
21	S	S	S	S	C	S	S	S	C	S	C	S
22	S	S	S	S	C	S	S	S	C	S	C	S
23	S	S	S	S	C	S	S	S	C	S	C	S
24	S	S	S	S	C	S	S	S	C	S	C	S
25	S	S	S	S	C	S	S	S	C	S	C	S
26	S	S	S	S	C	S	S	S	C	S	C	S
27	S	S	S	S	C	S	S	S	C	S	C	S
28	S	C	S	S	C	S	S	S	C	S	C	S
29	C	C	C	S	C	C	S	S	C	S	C	S
30	S	C	C	S	C	C	S	S	C	S	C	S
31	S		S	C	S	C	M	C	S	S	C	S
Total number of days in each class.												
Calm	9	9	11	12	10	16	14	11	16	12	12	10
Small	21	17	20	17	21	13	16	15	13	19	17	18
Moderate	0	2	0	1	0	1	1	4	1	0	1	2
Great	1	0	0	0	0	0	0	1	0	0	0	1
Very great	0	0	0	0	0	0	0	0	0	0	0	0
Sum	31	28	31	30	31	30	31	31	30	31	30	31
Selected quiet days.												
	3	2	2	1	6	2	1	3	1	7	4	1
	14	9	11	11	8	12	9	6	11	10	9	10
	15	13	18	14	12	15	18	12	17	16	16	13
	18	22	19	20	20	20	20	28	23	21	18	22
	28	24	29	28	31	27	26	29	26	22	30	31
Mean	15·6	14·0	15·8	14·8	15·4	15·2	14·8	15·6	15·6	15·2	15·4	15·4

TABLE IXc.—*Showing the magnetic character of each day during the year* 1918.

1918. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	C	S	S	S	S	C	S	S	S	S	S	M
2	C	S	S	C	S	C	S	S	S	S	S	S
3	S	C	S	S	S	C	S	S	S	S	C	S
4	S	C	S	S	C	C	C	C	S	S	C	C
5	S	S	S	S	C	S	C	C	S	S	C	C
6	S	S	S	S	C	S	C	C	S	S	C	C
7	S	S	S	S	C	S	C	C	S	S	C	C
8	C	S	C	S	C	S	S	M	S	S	C	C
9	C	S	S	S	C	S	S	S	S	S	C	C
10	S	S	S	S	C	M	S	S	S	S	C	C
11	S	S	S	S	C	S	S	S	S	S	C	C
12	S	S	S	S	C	S	S	S	S	S	C	C
13	S	S	S	S	C	S	S	S	S	S	C	C
14	S	S	S	S	C	S	S	S	S	S	C	C
15	S	S	S	S	C	S	S	S	S	S	C	C
16	S	S	S	S	C	S	S	S	S	S	C	C
17	S	C	S	S	C	S	S	S	S	S	C	C
18	S	C	S	S	C	S	S	S	S	S	C	C
19	S	C	S	S	C	S	S	S	S	S	C	C
20	S	S	S	S	C	S	S	S	S	S	C	C
21	S	S	S	S	C	S	S	S	S	S	C	C
22	S	S	S	S	C	S	S	S	S	S	C	C
23	S	S	S	S	C	S	S	S	S	S	C	C
24	S	S	S	S	C	S	S	S	S	S	C	C
25	S	S	S	S	C	S	S	S	S	S	C	C
26	S	S	S	S	C	S	S	S	S	S	C	C
27	S	S	S	S	C	S	S	S	S	S	C	C
28	S	S	S	S	C	S	S	S	S	S	C	C
29	M		S	S	C	C	S	S	S	S	C	C
30	M		S	S	C	C	S	S	S	S	C	C
31	M		S	S	C	C	S	S	S	S	C	C
Total number of days in each class.												
Calm	10	10	7	6	14	14	9	11	6	10	10	8
Small	18	18	22	23	16	15	22	19	23	18	17	20
Moderate	3	0	2	1	1	1	0	1	1	2	3	2
Great	0	0	0	0	0	0	0	0	0	1	0	1
Very great	0	0	0	0	0	0	0	0	0	0	0	0
Sum	31	28	31	30	31	30	31	31	30	31	30	31
Selected quiet days.												
	2	4	5	2	3	2	6	4	12	11	4	5
	9	8	6	13	7	8	7	13	13	12	6	6
	19	18	19	14	9	19	17	18	14	13	8	16
	22	20	25	20	27	20	22	19	15	14	26	22
	23	22	26	29	28	29	23	23	26	27	27	29
Mean	15·0	14·4	16·2	15·6	14·8	15·6	15·0	15·4	16·0	15·4	14·2	15·6

C=Calm ; S=Small ; M=Moderate ; G=Great ; V. G. =Very Great. Disturbances are determined from the Horizontal force traces. Days are reckoned *from local midnight to midnight.*

TABLE IXd.—*Showing the magnetic character of each day during the year* 1919.

1919. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	S	S	M	S	C	S	S	S	C	S	C	C
2	C	S	S	C	S	S	S	S	S	S	C	C
3	S	S	S	C	M	S	S	S	S	M	C	S
4	M	S	S	S	S	S	C	S	S	S	M	S
5	M	S	S	C	S	S	C	S	C	G	C	S
6	S	S	S	S	S	S	C	S	S	M	S	S
7	S	C	S	S	S	C	S	S	C	S	C	S
8	S	C	C	S	S	S	S	S	S	S	S	S
9	S	C	C	C	S	S	S	S	S	S	S	S
10	C	C	C	C	S	S	S	S	S	C	S	S
11	C	C	C	S	S	S	S	S	S	S	S	S
12	S	C	S	C	S	S	S	VG	S	C	C	S
13	M	C	S	S	S	S	S	G	C	C	C	S
14	S	S	S	S	S	S	S	C	S	C	C	S
15	S	S	S	S	S	C	S	C	S	C	C	S
16	S	S	S	S	S	S	S	S	S	S	S	S
17	S	S	S	C	S	S	S	S	S	S	S	S
18	S	S	C	S	S	S	S	S	S	S	C	C
19	S	C	S	S	S	S	C	S	M	S	C	S
20	S	S	C	S	S	S	S	S	S	S	C	S
21	S	S	M	M	S	S	S	S	S	C	S	S
22	S	S	S	M	S	S	S	C	S	M	S	S
23	S	S	S	S	S	S	S	S	S	S	S	S
24	S	S	S	C	S	S	S	S	M	S	S	S
25	C	C	C	S	S	S	C	S	S	C	C	S
26	C	C	C	S	S	S	S	S	S	S	C	M
27	C	C	S	S	S	S	S	S	S	S	C	S
28	S	S	M	C	S	S	C	S	C	S	C	S
29	S	S		S	C	S	S	S	C	S	C	C
30	S	S		S	S	C	S	S	C	C	S	C
31	S	S		S	S		S	C		C		C
Total number of days in each class.												
Calm	6	9	7	8	5	8	8	6	6	9	16	8
Small	22	17	21	22	24	22	23	23	22	18	13	21
Moderate	3	2	3	0	2	0	0	0	2	3	1	1
Great	0	0	0	0	0	0	0	1	0	1	0	1
Very great	0	0	0	0	0	0	0	1	0	0	0	0
Sum	31	28	31	30	31	30	31	31	30	31	30	31
Selected Quiet days.												
	2	8	9	3	1	8	5	6	1	10	5	1
	10	9	11	5	7	14	6	7	5	12	7	2
	11	11	13	15	11	16	16	15	12	14	15	18
	26	19	18	26	28	19	19	22	28	21	20	28
	27	25	26	28	29	20	28	31	29	24	28	31
Mean	15·2	14·4	15·4	15·4	15·2	15·4	14·8	16·2	15·0	16·2	15·0	16·0

TABLE IXe.—*Showing the magnetic character of each day during the year* 1920.

1920. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	S	C	C	C	S	S	S	C	S	S	S	C
2	S	C	C	C	S	C	C	S	S	S	S	S
3	S	C	C	C	S	C	C	S	S	S	S	S
4	S	C	C	S	S	S	C	S	S	S	S	M
5	C	C	S	S	C	S	C	S	S	S	S	M
6	C	C	S	S	C	C	S	S	S	S	S	S
7	S	S	S	S	C	C	S	S	C	S	S	S
8	S	S	S	S	C	C	S	S	S	S	S	S
9	S	C	S	S	C	S	S	S	S	S	C	C
10	S	C	S	S	C	S	S	S	S	S	S	C
11	S	S	S	S	C	C	S	S	S	S	C	S
12	S	S	S	S	C	C	S	S	S	S	S	S
13	C	S	S	S	C	C	S	S	S	C	C	S
14	C	S	S	S	C	S	S	S	S	C	C	S
15	S	S	S	M	S	S	S	S	S	C	C	S
16	S	S	M	S	S	S	S	S	S	C	C	S
17	S	S	S	S	S	S	S	S	S	C	C	S
18	C	C	S	C	C	C	S	S	S	C	C	S
19	C	C	S	C	C	C	C	S	S	C	C	S
20	C	C	S	C	C	C	C	S	S	C	C	S
21	S	S	S	C	C	C	C	S	S	C	C	S
22	S	S	S	C	C	C	C	S	S	C	C	S
23	S	S	S	C	C	C	C	S	S	C	C	S
24	S	S	M	S	S	S	C	S	S	C	C	S
25	G	S	S	S	S	S	C	S	S	C	C	S
26	S	S	S	S	S	S	C	S	S	C	C	S
27	C	S	S	S	S	S	C	S	S	C	C	S
28	S	S	S	S	S	S	C	S	S	C	C	S
29	S	S	C	S	S	S	C	S	S	C	C	S
30	S	S	C	S	S	S	C	S	S	C	C	S
31	S	S	C	S	S		C	S		C		S
Total number of days in each class.												
Calm	9	13	10	11	12	15	11	8	6	9	7	7
Small	22	14	17	18	18	15	20	23	23	21	22	20
Moderate	0	2	2	1	1	0	0	0	1	1	1	4
Great	0	0	1	0	0	0	0	0	0	0	0	0
Very great	0	0	1	0	0	0	0	0	0	0	0	0
Sum	31	29	31	30	31	30	31	31	30	31	30	31
Selected Quiet days.												
	5	3	3	1	6	3	3	1	2	9	3	1
	6	6	9	12	11	8	5	2	7	11	9	11
	19	10	13	13	12	14	20	24	20	12	10	19
	20	23	20	25	23	22	21	25	21	15	24	22
	27	29	31	27	24	27	29	26	25	30	30	29
Mean	15·4	14·2	15·2	15·6	15·2	14·8	15·6	15·6	15·0	15·4	15·2	16·4

C=Calm; S=Small; M=Moderate; G=Great; V. G=Very Great; Disturbances are determined from the Horizontal Force traces. Days are reckoned from local midnight to midnight.

TABLE IX*f*—*Showing the magnetic character of each day and the difference of the daily mean of horizontal force from that of the preceding day* (*continuation of table* 381 *in* "*Colaba Magnetic Data*" 1846-1905).

Unity=1γ.

1916.	Month.																							
Date.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
1	Ca	+ 8	C	+ 1	C	+ 6	S	+13	S	0	Ca	+21	Sa	−30	Ca	+13	Ca	+ 8	Sa	−15	Ca	+ 4	Sa	− 8
2	Ca	+ 4	C	− 1	Ca	+11	C	+19	S	+ 4	C	+12	S	+23	Sa	−40	S	− 3	S	+14	S	+10	S	+ 7
3	Ca	− 4	C	+ 4	S	−27	C	+ 5	Ca	− 6	C	+ 1	S	− 3	Ca	+ 7	S	−13	S	+ 1	Sa	−28	S	+ 8
4	Ca	− 6	Ca	+ 1	C	− 3	C	+ 6	Ca	+17	C	+ 5	S	+ 3	Ca	+14	S	+ 5	Ca	+17	S	−10	S	+ 6
5	Ca	− 8	Ca	− 8	Ca	− 1	Ca	+12	Ca	+ 3	C	0	Ca	+ 1	S	+ 1	S	− 5	S	− 3	Sa	− 6	Ca	+ 9
6	Ca	+20	C	+ 2	S	+ 3	Ca	−15	S	−25	Ca	− 3	S	0	S	−30	Ca	+18	M	−23	S	+ 3	Ca	− 1
7	C	−11	Ca	+14	Ca	−14	Ca	+ 6	Ca	+ 5	Ca	− 1	Ca	+ 3	S	+14	S	− 4	Sa	−30	S	+ 6	Ca	+ 5
8	C	+ 7	S	+17	M	−30	S	−18	Ca	− 1	S	− 9	S	− 9	S	0	S	− 7	S	+12	S	+10	Ca	− 8
9	Ca	+ 1	Ca	+ 4	Sa	−21	Ca	+ 8	Ca	+14	Ca	− 1	S	−24	Ca	+ 7	Ca	+12	S	+13	S	+ 3	S	+ 4
10	S	− 8	Ca	+ 3	S	+31	C	+ 7	Ca	+ 6	C	+12	S	+18	Ca	+ 1	S	+20	S	+10	Ca	− 4	Ca	0
11	Sa	−28	Ca	− 1	S	+33	Ca	0	S	−16	Ca	+ 7	Ca	+ 3	Ca	+ 9	Sa	−32	S	−11	Ca	+ 3	Ca	+ 5
12	S	+ 1	Ca	− 2	Ca	− 1	C	+ 1	Ca	+ 3	Ca	− 6	Ca	+ 6	Ca	+ 2	S	− 2	S	+ 1	Sa	−13	S	− 2
13	Ca	− 3	Ca	+ 2	Ca	+ 6	C	+ 6	Ca	+ 2	Ca	− 6	Ca	+ 4	Ca	− 2	S	+ 6	Sa	−19	S	+13	S	+ 3
14	Ca	+ 8	Ca	0	Ca	+ 2	Ca	+ 1	Ca	+ 2	Ca	+ 9	Ca	+ 4	Ca	−10	Ca	+10	S	+ 6	Ca	+ 6	S	+ 1
15	Ca	+ 6	Ca	+ 3	C	− 4	S	−32	C	+ 7	Ca	− 4	Ca	+ 5	C	+ 6	S	− 6	C	+16	S	+ 6	S	−12
16	Ca	+ 3	Ca	+ 7	Ca	+ 4	Ca	+ 6	Ca	+ 3	C	+ 8	S	+ 5	C	+11	S	− 2	C	+11	S	+ 2	S	− 3
17	C	+ 3	S	− 5	S	−48	Ca	+ 8	Ca	− 6	Ca	+ 2	S	−12	Ca	− 3	S	−14	C	+ 5	Ca	+ 4	S	− 1
18	C	+12	S	−16	Ca	+16	Ca	−17	Ca	+ 4	S	+ 1	S	0	C	+10	S	+11	C	+ 7	S	−11	Ca	+ 9
19	Ca	+ 5	Ca	+ 2	S	+10	Ca	+25	Ca	+ 3	S	−11	Ca	+ 5	S	−14	C	+ 9	Ca	+ 9	S	+ 1	Ca	+ 4
20	S	−14	Ca	+ 7	S	+ 6	S	+11	Ca	+ 7	S	−11	Ca	− 1	S	−15	C	+ 4	S	− 5	Ca	+ 1	Ca	− 5
21	Ca	+ 1	Ca	+ 8	Ca	+ 2	Ca	−11	S	−34	Ca	+ 1	C	+ 3	Ca	+ 4	Ca	+15	S	−10	Ca	+ 2	Ca	+10
22	S	− 6	Ca	−12	Ca	+ 8	Ca	+ 3	S	−11	S	− 7	Ca	+11	S	−12	Ca	+ 6	S	+ 7	S	− 1	C	+ 6
23	S	−11	Ca	+ 2	C	+ 2	Ca	− 6	S	+ 7	Ca	+ 6	S	−15	S	−11	Ca	−14	S	− 4	S	−10	C	+ 8
24	Ca	+13	Ca	− 2	S	−22	Ca	+11	S	+ 1	Ca	+20	Ca	− 3	Ca	− 4	S	− 1	S	+ 2	Ca	+ 9	Ca.	+ 5
25	S	−11	C	+ 6	S	+ 7	Sa	−48	Ca	+14	S	+ 3	Ca	0	C	+22	Ca	+ 2	S	− 3	S	+ 7	S	−11
26	Ca	+12	Ca	+ 6	Ca	0	S	− 5	Ca	+ 2	Ca	− 7	C	− 2	M	−14	S	− 2	Ca	+11	S	+ 2	S	+ 3
27	Ca	+ 4	S	− 6	C	+18	S	+ 6	Ca	+ 3	Ca	+ 3	C	+ 9	Sa	−70	S	−17	C	+ 3	S	− 6	Sa	−23
28	Ca	+ 7	Ca	− 1	Ca	+19	S	− 5	Ca	+ 5	Ca	− 1	C	− 6	Ca	+48	Ca	+ 9	Ca	+ 4	S	−12	S	+ 5
29	Ca	− 4	Ca	+ 1	Sa	−63	S	−15	S	+ 8	S	+ 8	C	− 7	S	+13	Ca	+16	S	− 4	S	+ 2	Ca	+ 5
30	Ca	+ 7	..		S	+ 1	S	+40	S	−17	S	−16	Ca	+16	Ca	+ 5	Sa	−18	Ca	−14	S	−19	S	− 6
31	Ca	− 3	..		S	+ 8	..		S	−25			Ca	+ 2	Ca	+ 4	..		Ca	+ 1	..		S	+ 4
Sum without regard to sign..	239		144		427		366		261		202		233		416		292		291		214		187	
Total number of days in each class.																								
C ..	4		5		5		6		1		3		5		4		2		5		..		2	
Ca ..	20		20		12		14		19		16		14		15		10		6		8		12	
S ..	6		4		11		9		11		8		11		9		16		16		19		15	
Sa ..	1		..		2		1		..		..		1		2		2		3		3		2	
M ..	..		..		1		..		..		..		..		1		..		1		..		..	
Ma ..	..		..		..		..		..		..		..		..		..		..		..		..	
G ..	..		..		..		..		..		..		..		..		..		..		..		..	
V. G ..	..		..		..		..		..		..		..		..		..		..		..		..	
Sum ..	31		29		31		30		31		30		31		31		30		31		30		31	

C = Calm ; S = Small ; M = Moderate ; G = Great ; V.G. = Very great. The suffix *a* denotes intermediate conditions of activity.

The character of the disturbances is determined from the horizontal force traces. Days are reckoned from 10 a.m. to 10 a.m. of the following day.

TABLE IX*g*—*Showing the magnetic character of each day and the difference of the daily mean of horizontal force from that of the preceding day* (*continuation of Table* 381 *in* "*Colaba Magnetic Data*" 1846-1905).

Unity=1γ.

C 1917.	Month.																							
Date.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
1	S	− 8	Ca	+ 6	Ca	− 2	S	−12	Sa	+ 1	C	+ 4	Ca	+ 4	S	+27	S	+18	S	+ 4	S	− 3	S	+ 5
2 ..	Ca	+ 5	Ca	+ 1	Ca	+ 8	S	−12	Sa	−43	C	+ 3	Sa	+ 1	Ca	+23	Sa	−23	S	+11	Ca	+14	S	− 8
3 ..	Ca	+ 2	Ca	+ 3	Ca	+10	S	− 3	Sa	+24	S	+ 2	S	−10	Ca	+21	S	−14	Sa	−15	C	+ 1	S	+ 3
4 ..	G	−94	S	+ 5	S	− 5	Ca	+ 4	Ca	+ 9	S	−24	S	+ 4	Ca	−13	S	+13	S	+ 4	C	+ 7	S	− 2
5 ..	S	+ 3	Ca	−11	Sa	−38	S	−10	S	+ 5	Ca	+16	Ca	− 3	Ca	+ 7	M	−35	Sa	+25	C	+10	S	+ 5
6 ..	S	+50	S	+ 7	S	+11	S	− 3	Ca	+12	S	+23	Ca	+ 5	S	+20	S	+ 9	S	− 7	S	− 2	S	+ 2
7 ..	S	+ 4	S	0	Ca	+ 7	Ca	+ 9	S	+ 1	Sa	−20	S	+11	S	−12	Ca	+16	S	+12	S	+ 4	S	+ 3
8 ..	S	+ 1	Ca	− 9	S	−15	S	0	Ca	+ 9	S	−21	Ca	−12	S	−11	S	+ 7	Sa	− 5	Ca	− 3	S	−11
9 ..	S	+ 9	Ca	+11	Ca	+14	Sa	−23	S	0	S	+24	Ca	+ 6	G	−107	S	−13	S	+ 3	Ca	+ 4	S	+ 4
10 ..	S	+ 6	Ca	− 9	Ca	+ 4	Ca	+35	Ca	+ 1	Ca	+ 1	S	+12	S	+26	Ca	+17	Ca	+ 3	S	−10	S	+12
11 ..	S	+ 4	Ca	0	Ca	+ 8	Ca	+ 9	Ca	− 4	Ca	+ 6	S	−21	Ca	+31	Ca	+13	S	−13	S	+12	S	+17
12 ..	S	+ 2	C	+13	S	−10	Ca	− 1	Ca	+10	Ca	− 2	S	− 7	S	+32	S	+ 2	Ca	+12	Sa	−42	S	−19
13 ..	S	− 8	Ca	− 3	S	−21	C	0	Ca	−12	S	−11	Sa	−49	G	−21	S	− 8	S	+ 6	S	+11	Ca	0
14 ..	Ca	+ 6	S	+ 4	Ca	+26	Ca	+ 8	S	− 7	S	0	Ca	+26	G	−63	S	+ 9	Sa	−25	Sa	−10	S	+ 7
15 ..	C	+14	M	−59	S	+ 6	S	− 9	S	+ 9	Ca	+ 6	Ca	+10	Sa	+22	S	0	Ca	+11	Ca	+12	Ca	+ 1
16 ..	S	− 7	S	+20	S	− 8	S	−33	Sa	−23	Ca	+ 2	C	+ 5	S	+49	S	+ 4	Ca	+ 8	C	+ 9	G	−81
17 ..	Ca	− 5	S	+16	Ca	+ 7	S	+16	S	+13	Ca	− 5	C	+ 5	Ca	− 3	S	− 8	Ca	− 6	Ca	− 2	Sa	+10
18 ..	Ca	+ 9	S	−13	Ca	− 7	S	+ 5	Ca	+18	Ca	+ 1	C	+ 4	Ca	+11	S	0	Ca	+15	Ca	− 5	M	+16
19 ..	S	+10	S	+21	Ca	+13	C	0	Ca	− 2	C	+11	Ca	+ 2	C	+ 6	Sa	−23	Ca	+ 7	S	−13	S	+15
20 ..	S	− 8	Sa	− 3	S	+ 7	Ca	+13	Ca	− 1	C	+10	C	+10	Sa	+ 7	S	− 8	Ca	− 2	S	+ 8	Sa	+14
21 ..	S	− 1	S	+14	S	−11	Ca	+ 5	S	+ 6	Ca	− 1	S	−11	M	+ 9	S	+11	C	0	Ca	+17	Ca	− 1
22 ..	S	− 4	S	+ 1	S	− 3	Ca	− 2	S	+ 5	S	+10	S	−30	Sa	+16	S	+14	Ca	− 2	Ca	0	Ca	+ 4
23 ..	S	+ 3	S	0	S	− 1	Ca	− 2	S	− 5	Sa	−39	Ca	+11	S	+26	Ca	+11	S	+ 2	Ca	+11	Ca	+ 4
24 ..	S	+ 6	Ca	− 5	Ca	+13	Ca	+ 2	S	+ 3	Sa	−25	S	+ 6	Ca	+30	S	0	S	−17	S	−16	Ca	+12
25 ..	S	− 2	S	+ 5	Sa	−24	S	+ 9	S	+ 6	S	+12	S	+13	Sa	+27	S	+ 9	Sa	−58	S	−12	S	−15
26 ..	S	− 6	S	− 4	Ca	+16	M	−46	S	− 9	Ca	+16	Ca	0	Sa	−48	Ca	+ 3	Ca	+48	Sa	−11	S	− 9
27 ..	S	+ 4	S	+10	S	− 3	C	+21	S	−15	Ca	0	S	+22	S	+31	S	− 8	S	+ 8	S	+ 4	S	+ 7
28 ..	Ca	+ 8	S	− 5	Ca	+ 8	Ca	+18	S	− 6	Ca	+ 6	Sa	−27	Ca	+11	S	+11	M	−36	S	+ 7	S	+18
29 ..	Ca	− 3	..		Ca	− 1	Ca	−12	S	+ 3	Ca	− 6	Sa	−50	C	+11	S	−13	Sa	−18	S	+ 5	S	+ 2
30 ..	S	− 1	..		Ca	+ 6	Sa	−15	Ca	+ 2	Ca	+16	S	+32	S	− 2	Sa	−40	S	+26	Ca	− 4	S	+ 4
31 ..	S	− 4	..		S	0	..		C	+ 5	..		M	−46	Ca	− 5	..		S	+18	..		Ca	− 1
Sum without regard to sign.		297		258		313		337		269		323		455		728		360		427		269		312

Total number of days in each class.

C ..		1		1	..			3		1		5		4		2	..			1		4	..	
Ca ..		7		10		16		13		11		13		10		10		5		10		10		7
S ..		22		15		13		11		15		9		12		10		21		13		13		20
Sa ..	..			1		2		2		4		3		4		5		3		6		3		2
M ..	..			1	..			1	..		..			1		1		1		1	..			1
Ma ..	..		..		..		..		..		..		..		..		..		..		..		..	
G ..		1	..		..		..		..		..		..			3	..		..		..			1
V.G. ..	..		..		..		..		..		..		..		..		..		..		..		..	
Sum ..	31		28		31		30		31		30		31		31		30		31		30		31	

C=Calm ; S=Small ; M=Moderate ; G=Great ; V.G.=Very great. The suffix *a* denotes intermediate conditions of activity.

The character of disturbances is determined from the horizontal force traces. Days are reckoned from 10 a.m. to 10 a.m. of the following day.

TABLE IX*h*.—*Showing the magnetic character of each day and the difference of the daily mean of horizontal force from that of the preceding day (continuation of table* 381 *in "Colaba Magnetic Data"* 1846-1905).

Unity=1γ.

1918.	Month.																							
Date.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
1 ..	Ca	+ 4	S	+23	S	+17	S	+12	S	+ 4	Ca	+15	S	− 5	Ca	+10	Sa	−28	Sa	+ 2	S	+29	M	− 4
2 ..	Ca	0	S	+12	S	+ 4	Ca	− 8	Ca	+15	C	+ 5	S	+ 4	S	−12	S	+17	S	+ 5	S	+ 1	S	+24
3 ..	S	− 7	Ca	+ 8	S	−19	Ca	+ 3	Ca	+10	Ca	+ 3	S	−10	S	−12	S	− 5	S	− 5	Ca	+10	Sa	−22
4 ..	S	− 1	Ca	+ 2	S	+18	S	−18	S	−20	Ca	+ 2	S	+ 5	S	+16	Sa	− 3	S	+ 5	Ca	+ 8	S	+22
5 ..	S	− 1	Sa	− 4	Ca	+12	Sa	−30	S	+ 1	S	− 3	Ca	+ 2	S	− 3	S	+ 7	S	+ 4	Ca	− 1	Ca	+19
6 ..	S	− 4	S	−21	Ca	+ 1	Sa	−24	S	+18	S	− 6	Ca	+ 4	S	− 1	S	+ 3	S	+ 2	C	+ 5	Ca	+14
7 ..	Ca	+ 6	S	+15	M	−24	S	+24	Ca	+ 2	S	+ 2	S	+ 8	S	+ 3	S	+ 7	S	+ 5	Ca	+ 1	Sa	−19
8 ..	Ca	+ 3	Ca	+10	M	−75	S	+20	Ca	+ 6	Ca	+ 4	S	−20	S	− 7	S	−13	M	−42	Ca	− 4	Ma	−77
9 ..	Ca	+ 8	S	+ 9	S	+55	S	+ 6	S	+ 8	Sa	+ 3	S	+ 2	S	0	S	+13	S	+ 6	S	− 1	Sa	+38
10 ..	S	− 6	S	−11	Sa	+ 9	S	+10	S	0	Ma	−89	S	+ 7	S	+13	S	+ 8	S	+17	S	−13	Sa	+ 7
11 ..	Ca	0	S	−12	Sa	− 1	M	−37	S	−11	S	+35	S	−17	S	−11	Ca	+ 6	Ca	+17	Sa	−30	Sa	+15
12 ..	Sa	−18	Sa	−47	Sa	−18	S	+ 7	S	− 7	S	− 3	S	+13	S	+ 6	Ca	+ 5	Ca	+ 4	Sa	− 9	S	+ 8
13 ..	S	− 1	S	+ 9	C	+27	Ca	+19	S	+ 8	S	+17	S	+ 1	S	+ 2	S	−18	Ca	+11	S	+11	S	+ 1
14 ..	S	+ 5	S	+19	S	+16	Ca	+ 7	S	− 7	S	−12	S	+ 9	S	− 3	S	− 5	Ca	+ 5	S	+ 7	S	− 2
15 ..	S	+ 6	Sa	+16	M	0	Ca	+10	S	− 4	Sa	+16	S	−14	M	−18	Ca	+ 6	Sa	−34	S	− 6	Ca	+10
16 ..	Ca	+ 4	S	+ 4	Sa	−29	Ca	− 2	M	−21	S	0	S	+ 6	Sa	−38	S	− 8	G	−123	S	− 2	Ca	0
17 ..	Ca	+ 1	S	+13	S	+19	Ca	+ 5	Sa	−49	S	+ 3	S	+10	Ca	+37	Sa	−18	Sa	+70	S	+12	S	+ 7
18 ..	Ca	+ 7	Ca	+ 1	S	+ 5	Sa	− 8	Sa	+37	S	+ 4	Ca	−12	Ca	+ 8	S	− 5	S	+17	S	+ 7	S	+11
19 ..	C	+ 4	Ca	+ 4	Ca	+ 6	S	−32	S	+ 7	Ca	+ 3	Ca	+ 9	Ca	+14	Sa	−18	Sa	+14	S	+ 2	M	−44
20 ..	S	0	S	+ 6	S	0	Ca	+30	S	+10	Ca	+ 4	Ca	+ 3	Ca	−16	S	+ 9	S	− 7	S	+17	Sa	+16
21 ..	S	−11	S	−11	Sa	−10	S	+ 9	S	+ 4	S	+ 3	Ca	− 1	Ca	+12	M	−56	S	+15	S	−11	S	+ 1
22 ..	Ca	+ 3	C	+10	Sa	− 1	S	− 9	S	+ 6	S	+ 4	Ca	+ 4	S	+ 1	S	+50	S	+ 9	S	+ 5	S	+15
23 ..	C	+ 6	S	− 2	S	+ 6	S	−11	Ca	+ 3	Ca	+ 1	S	+ 4	Ca	+ 4	S	+16	S	−10	M	−97	S	−10
24 ..	S	− 6	S	−16	Ca	+ 1	S	+ 8	S	+12	Ca	− 3	S	− 2	S	−23	Sa	+ 5	S	+ 5	Sa	+42	S	+14
25 ..	S	+ 1	S	+19	Ca	+12	Sa	+ 2	Ca	−10	Ca	+15	Sa	−26	S	− 8	S	+ 7	S	+ 7	S	+26	G	−69
26 ..	S	+ 4	S	+ 4	S	+ 4	S	−40	Ca	+ 8	S	−23	S	− 2	S	+11	S	+11	S	+ 8	Ca	+16	Sa	+15
27 ..	S	−10	S	− 5	S	−18	Ca	+36	Ca	+ 5	Ca	+ 6	S	+ 1	Sa	−15	S	− 8	Ca	+11	Ca	0	Ca	+14
28 ..	S	+13	Sa	−30	S	+ 2	S	+12	Ca	+ 1	Ca	+10	Sa	− 3	Ca	+12	Sa	+ 1	Sa	−15	S	+ 6	Ca	+20
29 ..	Sa	−22	..		S	0	S	+ 2	S	−16	Ca	0	Sa	− 8	Ca	+11	Sa	+ 7	S	+ 6	M	− 8	Ca	+ 4
30 ..	M	−27	..		Ca	+10	Sa	−34	S	− 5	Ca	− 2	Sa	+ 6	Ca	+ 9	Sa	− 4	S	+12	S	−32	Ca	+21
31 ..	Sa	− 7	..		S	− 1	..		Ca	+ 9	..		S	+10	Sa	− 2	..		Sa	−45	..		S	− 8
Sum without regard to sign.		196		343		420		475		324		296		228		338		367		538		419		551

Total number of days in each class.

C ..		2		1		1	..	9	..	10		1	..	7	..	10	..	3	..	5		1	..	8
Ca ..		10		5		6		9		10		13		13		7		8		7		17		12
S ..		15		18		15		15		18		13		20		17		18		18		17		12
Sa ..		3		4		6		5		2		2		4		3		8		6		3		7
M ..		1	..			3		1		1	..		..			1		1		1		2		2
Ma ..	..		..		..		..		..			1	..		..		..		..		..		..		1
G ..	..		..		..		..		..		..		..		..		..			1	..			1
V. G. ..	..		..		..		..		..		..		..		..		..		..		..		..	
Sum ..		31		28		31		30		31		30		31		31		30		31		30		31

C.=Calm; S.=Small; M.=Moderate; G.=Great; V. G.=Very great. The suffix *a* denotes intermediate conditions of activity.

The character of disturbances is determined from the horizontal force traces. Days are reckoned from 10 a.m. to 10 a.m. of the following day.

TABLE IX*i*—*Showing the magnetic character of each day and the difference of the daily mean of horizontal force from that of the preceding day (continuation of table* 381 *in "Colaba Magnetic Data"* 1846-1905).

Unity=1γ.

1919.	Month.																							
Date.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
1 ..	Ca	0	Sa	−17	Sa	− 4	S	+13	S	+ 3	S	+13	S	+17	S	−12	Ca	+ 6	Ma	−55	Ca	+23	Ca	+12
2 ..	Ca	+ 9	Sa	+15	Sa	+13	Ca	+ 4	M	−54	S	+ 1	S	− 2	S	+ 6	M	−11	S	−18	Ca	+ 9	Ca	+ 5
3 ..	M	−14	Sa	+ 1	Sa	+ 3	Ca	+13	Sa	−26	S	+ 1	S	−20	S	− 4	S	−35	M	+12	S	+15	S	+ 1
4 ..	Ma	−53	S	+ 2	S	+ 8	S	−28	S	+40	S	+ 8	Ca	+ 1	S	+ 5	S	+ 7	M	+18	M	−70	S	−14
5 ..	Sa	+25	S	− 8	S	+12	Ca	+12	S	− 9	S	− 6	C	+ 1	S	−12	Ca	+14	G	−17	Ca	+19	S	0
6 ..	Sa	+ 7	S	+ 8	S	− 6	Sa	− 6	S	+18	S	+ 1	C	+10	Ca	+14	Sa	−36	M	+14	S	+20	S	+ 4
7 ..	S	+10	Ca	+14	S	−12	Sa	−30	Ca	+17	Ca	− 4	S	− 3	S	− 8	S	+30	Sa	+21	Ca	+15	S	+ 9
8 ..	S	+11	Ca	− 3	Ca	+ 5	S	+ 1	Ca	+ 8	S	+13	S	−15	S	− 7	S	+12	S	+11	S	+15	S	− 1
9 ..	S	+ 3	Ca	0	Ca	+16	Ca	+12	S	+ 3	Sa	−32	S	− 1	Ca	+12	Sa	−17	Sa	−11	Ca	− 3	S	− 2
10 ..	Ca	+ 9	C	− 4	Ca	+12	S	+ 6	S	−15	Sa	−13	S	+ 4	S	+13	S	+ 7	S	+ 9	Ca	+ 4	S	+ 8
11 ..	Ca	+ 3	C	+ 8	S	+ 4	S	− 7	Ca	+17	S	+ 3	S	+ 4	V.G.	−155	S	+15	S	+16	Sa	−21	S	−14
12 ..	S	+ 1	Ca	+ 6	S	−24	S	− 1	S	− 4	S	− 9	S	− 2	M	+52	Ca	+15	S	+ 4	S	−20	S	− 3
13 ..	Sa	−14	Sa	−28	S	+ 8	Ca	+29	Sa	−34	S	+10	S	− 5	C	+12	S	− 9	Ca	− 2	Ca	+30	S	+ 5
14 ..	Sa	−14	Sa	− 5	Sa	−38	Ca	+ 7	Sa	+12	Ca	+13	Ca	+ 6	Ca	+36	S	−18	Ca	0	Ca	+ 7	M	−26
15 ..	S	+15	S	+ 7	S	+25	S	+ 2	S	+11	Ca	+ 5	C	+ 9	S	+12	S	− 3	S	− 6	Ca	− 5	G	−77
16 ..	Sa	−22	S	− 5	Sa	−17	Sa	−33	Ca	− 1	Ca	− 2	Ca	+ 3	Ca	− 5	S	+ 2	S	−44	Sa	−19	S	+63
17 ..	S	+ 1	S	+13	S	+ 7	M	−35	Sa	−10	S	− 6	Sa	−32	Ca	+12	S	+17	Sa	0	S	− 6	S	+24
18 ..	Sa	+ 6	S	+ 1	Ca	+25	Sa	+15	S	− 7	Ca	− 1	S	− 6	S	+ 1	S	− 5	S	+ 8	S	+ 7	S	+ 7
19 ..	S	+ 3	Ca	+11	Sa	−19	S	+10	S	+20	C	+ 8	Ca	+15	M	−47	Ma	−77	S	+16	Ca	+ 9	S	− 4
20 ..	S	+ 6	S	+11	M	−33	S	+ 4	S	− 7	Ca	+12	Ca	+ 8	S	+24	Sa	+ 3	S	+16	Ca	+14	S	+ 1
21 ..	S	+ 8	M	−41	Sa	+ 7	S	− 9	M	+13	Ca	− 9	Ca	+ 5	Ca	+21	S	+33	S	+12	S	+ 2	S	− 9
22 ..	S	− 1	Sa	+ 2	Sa	− 5	S	+ 8	Sa	−11	S	− 4	Sa	−13	Ca	− 1	S	+23	M	−27	Sa	−40	S	+ 4
23 ..	S	0	Sa	−14	S	+ 9	S	+ 4	S	−11	S	−24	S	−27	S	+ 1	Sa	+24	Sa	−23	S	+19	S	− 1
24 ..	S	+ 1	C	+14	Ca	+15	S	+15	Sa	−26	S	+ 1	S	+19	S	+14	M	−24	Ca	+32	S	+ 9	S	− 5
25 ..	Ca	+ 5	C	+10	S	+ 5	S	+ 3	S	+40	Sa	+24	Ca	+10	S	− 3	S	+ 5	Ca	+ 8	S	+ 7	S	+ 4
26 ..	C	+ 5	Ca	+ 3	S	+18	Ca	+ 2	Sa	−29	S	−20	S	+ 8	Sa	−28	S	+ 7	Sa	+ 2	Ca	−12	Ca	+14
27 ..	C	+ 7	Sa	+ 2	Sa	+ 4	S	+ 6	S	+18	S	+22	Ca	+ 1	Ca	+ 8	Ca	+ 7	S	−24	Ca	+11	Ca	+ 2
28 ..	S	− 6	Sa	−21	Sa	−28	Ca	+ 1	Ca	+15	S	+ 3	Ca	+10	S	+14	Ca	+ 8	Sa	− 4	Ca	+ 1	Ca	− 7
29 ..	S	−16	..		Sa	+ 8	S	−10	Ca	+12	S	−14	Ca	− 6	S	− 6	Ca	− 6	S	− 4	Ca	+ 3	Ca	+14
30 ..	S	− 3	..		S	+ 2	S	+ 6	S	+13	Ca	+10	Ca	+ 6	S	+19	S	+10	S	+18	S	−15	Ca	− 2
31 ..	M	+ 6	..		S	+ 7	..		Ca	− 7	..		Ca	− 2	Ca	− 2	..		S	−16	..		Ca	+12
Sum without regard to sign.		284		274		399		332		513		292		271		566		486		468		450		354
Total number of days in each class.																								
C ..		2		4	..		..		..		1		3		1		..		..		..		..	
Ca ..		5		6	..	5	..	8	..	7	8		12		9		6		..	4	..	15	..	8
S ..		15		8		14		17		15		18		14		17		17		15		11		21
Sa ..		6		9		11		4		7		3		2		1		4		6		3	..	
M ..		2		1		1		1		2	..		..			2		2		4		1		1
Ma ..		1	..		..		..		..		..		..		..			1		1	..		..	
G ..	..		..		..		..		..		..		..		..		..			1	..			1
V. G. ..	..		..		..		..		..		..		..			1	..				..		..	
Sum ..		31		28		31		30		31		30		31		31		30		30		30		31

C.=Calm; S.=Small; M.=Moderate; G.=Great; V. G.=Very great. The suffix *a* denotes intermediate conditions of activity.

The character of disturbances is determined from the horizontal force traces. Days are reckoned from 10 a.m. to 10 a.m. of the following day.

TABLE IX*j*.—*Showing the magnetic character of each day and the difference of the daily mean of horizontal force from that of the preceding day (continuation of Table 381 in "Colaba Magnetic Data", 1846-1905).*

Unity=1γ.

1920.	Month.																							
Date.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
1 ..	S	— 1	Ca	+ 4	S	+ 3	Ca	+ 1	Sa	—29	S	+14	S	— 9	Ca	— 6	S	—13	S	+13	S	— 7	Ca	+ 6
2 ..	S	—21	C	— 1	Ca	+13	Ca	+ 5	S	+28	Ca	— 5	Ca	+ 4	C	+ 3	S	+13	S	+ 9	S	—13	S	— 7
3 ..	S	+ 3	C	+ 5	Ca	+11	S	— 8	S	— 2	Ca	+ 4	Ca	+ 8	S	+12	Sa	—30	Ca	+13	S	+12	S	— 7
4 ..	Ca	+ 1	Ca	+ 8	Ma	—41	S	— 3	Ca	+14	S	— 7	Ca	+ 5	S	—27	Sa	— 5	S	—10	S	—20	M	+ 4
5 ..	Ca	+ 8	C	+ 5	M	—56	Sa	—18	Ca	+11	Ca	+ 3	Ca	+ 6	S	+ 6	S	+18	S	0	S	+ 6	Sa	— 5
6 ..	S	+ 1	S	+ 9	Sa	+56	S	+ 7	C	+ 2	S	—14	S	—18	Ca	+12	Ca	+11	S	+ 5	S	—18	S	—1
7 ..	S	—17	S	—27	S	— 2	S	+ 6	C	0	Ca	+11	S	— 5	S	+15	S	+14	S	— 9	S	+18	S	— 2
8 ..	S	+29	Ca	+ 3	S	+ 6	S	— 1	S	+14	C	+10	S	—12	S	—32	Sa	—29	S	+18	Ca	+11	S	+ 1
9 ..	S	—19	C	+ 6	C	+ 8	S	+ 8	Sa	—32	S	— 3	Ca	+11	S	— 7	S	—13	S	+22	Ca	+ 5	S	+ 3
10 ..	Sa	—15	C	+ 1	S	+16	S	— 6	C	+ 9	M	—52	Ca	+10	S	+ 4	S	+12	Sa	—64	Ca	+ 6	Ca	+10
11 ..	S	+12	S	+13	S	— 3	Ca	+ 9	Ca	+14	S	+13	S	+ 7	S	+ 4	S	0	S	+28	Ca	+ 7	Ca	+ 9
12 ..	Ca	— 8	S	—14	S	— 5	Ca	+ 5	S	+11	Ca	+19	Sa	—28	S	+ 2	Ca	+16	S	+13	S	0	Ca	+13
13 ..	Ca	+ 5	Ca	— 4	Ca	+ 4	Ca	+ 8	M	—18	Ca	+ 6	Ca	+14	S	—20	S	+ 5	S	+11	S	— 7	S	—17
14 ..	S	+16	S	—10	M	—36	S	— 9	S	—29	C	+ 6	S	+ 8	S	+ 9	S	+ 1	Ca	+ 5	Ca	+ 5	S	— 5
15 ..	S	— 5	S	+20	Sa	+ 4	Ma	—83	Sa	— 9	S	+12	Sa	—16	Ca	+11	S	—17	Ca	— 8	S	—16	S	+ 5
16 ..	S	— 2	M	—38	S	+20	S	+45	S	+16	Ca	— 2	S	— 5	Ca	+ 1	S	+ 5	Ca	+19	S	+13	Ca	— 3
17 ..	S	—12	Sa	+10	S	+10	Sa	— 3	S	+11	Ca	+ 7	S	+11	Ca	+12	S	—17	S	—11	S	—24	Ca	+12
18 ..	Ca	+ 6	S	+ 8	S	— 8	Sa	— 5	Ca	0	Ca	— 6	S	—18	S	— 4	S	+10	S	+ 3	S	+ 4	S	— 2
19 ..	Ca	+ 7	Ca	+ 2	S	+11	S	+ 6	Ca	+14	S	— 1	Ca	+10	Ca	—10	Ca	+ 5	Ca	— 9	Ca	+11	S	0
20 ..	S	+ 8	S	+14	S	+ 8	Sa	—28	S	+ 7	Ca	— 3	Ca	+ 6	S	+10	Ca	— 1	Ca	+18	S	+13	S	+ 9
21 ..	Sa	—28	S	+ 2	S	+ 4	S	+33	S	— 5	Ca	+ 4	Ca	+12	S	—37	S	+ 9	Ca	+10	S	—10	C	— 6
22 ..	S	+11	Ca	+ 1	V.G.	—212	S	+23	Ca	+ 7	Ca	— 1	S	— 6	S	+ 5	Sa	—16	S	+ 2	S	0	C	+ 3
23 ..	S	+ 5	S	0	G	+31	S	+ 1	Ca	+ 7	S	+ 2	S	—15	Ca	+14	S	— 1	S	—16	Ca	+ 9	S	+ 9
24 ..	Ca	— 3	M	—46	M	+67	S	—22	Ca	— 9	S	—12	S	+ 4	Ca	+ 5	S	+ 6	S	—13	Ca	+ 3	S	—11
25 ..	Ca	+ 5	S	+13	Sa	+35	Ca	+18	S	— 6	S	+ 9	Ca	+ 4	Ca	+13	S	+18	Sa	— 7	Ca	0	Sa	—14
26 ..	S	— 2	S	+ 9	S	+25	S	+10	S	+ 4	Ca	— 1	Ca	— 3	Ca	+ 9	Ca	+ 7	S	+ 6	Sa	—16	M	—55
27 ..	C	+10	S	+ 2	S	— 2	Ca	+ 2	S	— 5	Ca	+ 4	Ca	+ 3	Ca	— 4	S	— 8	S	+ 5	S	—13	Sa	+36
28 ..	Sa	— 5	Ca	+ 1	Ca	— 2	Ca	+ 8	Sa	— 8	S	+ 9	C	+ 5	Ca	+ 4	M	—56	S	— 3	Ca	+13	S	+13
29 ..	S	+ 3	Ca	+ 4	Ca	+12	S	— 4	S	— 4	S	—11	Ca	+11	S	+ 3	Sa	—30	S	— 8	S	+ 3	Ca	+ 7
30 ..	Sa	—13	..		Ca	+15	S	—18	S	+ 4	S	+ 2	Ca	+ 6	S	—32	S	+25	C	+20	Ca	+ 1	S	+13
31 ..	Ca	+ 1	..		Ca	+ 9	..		Ca	+ 4	..		Ca	— 6	S	+18	..		S	— 2	..		S	—13
Sum without regard to sign.	282		280		735		403		333		253		286		351		411		380		284		301	
Total number of days in each class.																								
C ..	1		5		1		..		3		2		1		1		..		1		..		2	
Ca ..	9		8		7		8		9		14		16		12		5		7		11		7	
S ..	17		13		14		17		14		13		12		18		19		21		18		17	
Sa ..	4		1		3		4		4		..		2		..		5		2		1		3	
M ..	..		2		3		..		1		1		..		..		1		..		..		2	
Ma ..	..		..		1		1		..		..		..		..		..		..		..		..	
G ..	..		..		1		..		..		..		..		..		..		..		..		..	
V.G. ..	..		..		1		..		..		..		..		..		..		..		..		..	
Sum ..	31		29		31		30		31		30		31		31		30		31		30		31	

C=Calm ; S=Small ; M=Moderate ; G=Great ; V.G=Very Great. The suffix *a* denotes intermediate conditions of activity.

The character of disturbances is determined from the horizontal force traces. Days are reckoned from 10 a.m. to 10 a.m. of the following day.

TABLE Xa—*Diurnal ranges of horizontal force.*

1916.

Unity=1γ.

1916. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1 ..	35	30	46	61	70	38	115	97	32	87	45	75
2 ..	35	36	51	75	61	55	58	172	63	70	65	44
3 ..	55	31	79	65	51	50	45	36	78	65	155	46
4 ..	72	63	29	76	63	72	72	39	48	68	53	42
5 ..	42	73	86	54	85	54	64	53	51	79	86	43
6 ..	43	41	88	71	86	39	73	76	61	177	46	35
7 ..	47	55	52	67	62	60	61	45	96	61	52	39
8 ..	31	95	332	149	33	67	103	71	81	51	48	52
9 ..	61	40	72	55	49	46	66	33	47	45	49	61
10 ..	79	44	86	59	65	60	45	49	38	65	61	40
11 ..	109	61	73	85	89	40	37	56	61	50	57	69
12 ..	37	52	54	74	55	62	56	54	33	87	89	77
13 ..	26	36	63	69	37	53	29	45	44	93	41	40
14 ..	27	40	63	89	43	60	47	65	37	63	49	51
15 ..	24	37	57	76	41	67	45	49	84	37	53	65
16 ..	29	38	75	46	54	53	63	55	64	51	67	25
17 ..	28	75	42	49	60	58	56	47	69	53	40	28
18 ..	28	65	57	93	46	67	46	62	58	65	68	37
19 ..	53	54	57	66	49	75	54	104	34	40	51	25
20 ..	114	42	81	93	58	43	54	67	29	77	45	23
21 ..	45	64	64	53	94	48	67	55	46	77	37	20
22 ..	90	48	68	55	63	63	56	75	71	52	52	25
23 ..	38	57	57	78	42	56	104	55	31	49	75	29
24 ..	38	48	133	57	49	76	62	49	52	52	48	43
25 ..	69	35	73	180	57	83	52	41	57	66	65	79
26 ..	27	45	55	47	66	58	64	205	59	45	47	74
27 ..	29	78	57	84	59	80	49	113	64	61	44	111
28 ..	43	50	65	62	52	63	51	20	17	82	38	45
29 ..	37	49	224	169	65	45	61	44	41	91	85	55
30 ..	43	..	102	101	101	81	56	32	143	33	105	73
31 ..	44	..	129	..	49	..	51	43	..	49	..	56
Monthly Mean. ..	47·7	51·1	82·9	78·6	59·8	59·1	60·1	64·7	56·3	65·8	60·5	49·3

TABLE Xb—*Diurnal ranges of horizontal force.*

1917.

Unity=1γ.

1917. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1 ..	43	30	48	67	74	43	71	47	77	41	68	45
2 ..	28	70	60	76	89	53	90	50	107	69	63	83
3 ..	19	39	56	77	65	88	88	59	36	68	68	65
4 ..	251	43	117	61	32	51	61	73	48	57	75	81
5 ..	82	57	89	127	67	67	57	41	188	95	69	41
6 ..	27	45	68	92	84	70	71	105	65	46	76	36
7 ..	45	60	56	81	54	127	105	119	35	86	60	59
8 ..	46	42	83	69	60	72	58	84	43	143	60	39
9 ..	36	43	45	107	89	51	84	163	76	79	62	35
10 ..	58	49	69	53	49	81	64	34	47	60	69	48
11 ..	48	51	54	61	55	72	107	60	70	54	53	64
12 ..	53	45	85	80	70	94	65	59	83	61	163	87
13 ..	35	56	81	81	37	129	134	157	43	92	52	63
14 ..	44	77	44	61	56	88	39	203	81	87	109	71
15 ..	30	168	103	109	53	82	47	112	44	72	51	64
16 ..	41	43	74	75	195	69	58	94	71	39	57	275
17 ..	33	48	66	48	71	65	63	53	64	89	93	98
18 ..	26	58	64	77	66	36	65	52	77	65	84	176
19 ..	43	102	65	57	48	59	85	42	82	77	100	94
20 ..	56	111	79	75	46	56	84	87	71	92	73	92
21 ..	66	73	77	63	55	78	102	143	57	60	46	43
22 ..	54	56	69	81	70	75	71	83	55	101	48	43
23 ..	81	60	51	54	69	84	46	84	67	72	46	52
24 ..	45	39	72	79	42	71	34	50	90	81	72	52
25 ..	75	81	107	64	65	43	74	98	66	113	94	100
26 ..	94	54	56	115	74	70	61	62	57	55	109	101
27 ..	85	65	101	53	77	51	72	73	86	97	58	50
28 ..	30	49	76	75	63	56	115	68	105	155	53	74
29 ..	45	..	55	66	48	81	85	71	119	111	66	85
30 ..	62	..	89	114	69	74	51	86	73	66	63	77
31 ..	69	..	77	..	63	..	203	34	..	60	..	57
Monthly Mean.	56·5	61·2	72·1	76·6	66·3	71·2	77·7	82·1	72·8	78·8	72·0	75·8

The diurnal ranges are derived from twenty-four hourly tabulations of the horizontal force magnetograms during the day. The ranges are aperiodic, *i.e.*, the maximum and the minimum values are taken whatever hour of the day they have occurred. Days are reckoned from 10 a.m. to 10 a.m. of the following day.

TABLE Xc.—*Diurnal ranges of horizontal force.*

1918.

Unity=1γ.

1918. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1 ..	43	41	45	71	35	50	98	63	70	61	57	106
2 ..	66	118	39	81	59	65	64	95	25	68	55	30
3 ..	74	76	84	79	87	55	51	59	32	61	43	114
4 ..	45	50	59	71	118	76	54	70	67	74	58	47
5 ..	64	149	51	79	82	57	59	88	39	55	45	37
6 ..	60	67	53	91	78	62	65	71	36	55	64	38
7 ..	35	53	184	61	45	97	57	41	45	59	64	106
8 ..	35	46	93	76	67	62	53	40	59	161	76	185
9 ..	48	83	48	77	84	108	52	63	33	57	72	70
10 ..	72	69	106	74	77	240	73	51	41	40	108	52
11 ..	42	75	100	188	101	80	54	73	62	57	84	35
12 ..	126	103	75	51	69	51	64	41	39	69	101	28
13 ..	65	70	58	71	67	49	58	48	82	91	56	36
14 ..	51	57	65	63	67	65	65	69	86	68	65	47
15 ..	65	132	133	60	69	53	63	177	37	159	65	41
16 ..	59	82	123	62	133	44	43	101	73	215	60	62
17 ..	44	55	65	77	97	46	51	51	97	51	65	56
18 ..	45	48	90	90	52	55	48	25	36	49	63	66
19 ..	50	49	60	78	37	42	67	49	80	81	82	118
20 ..	81	90	109	71	46	58	30	76	59	90	44	102
21 ..	95	67	121	65	51	90	37	44	208	76	86	43
22 ..	65	51	82	56	56	49	53	55	54	66	73	34
23 ..	45	88	86	77	59	52	65	58	58	95	135	45
24 ..	119	64	63	58	48	72	69	86	89	63	68	35
25 ..	59	58	64	127	53	42	183	121	58	84	32	262
26 ..	48	66	110	68	62	99	71	61	41	42	43	77
27 ..	63	92	95	67	62	54	77	87	53	50	36	33
28 ..	63	80	60	106	48	72	81	45	81	129	59	31
29 ..	129	..	69	60	107	55	81	43	82	42	131	55
30 ..	97	..	53	86	60	57	81	63	45	64	65	28
31 ..	87	..	102	..	40	..	78	105	..	136	..	73
Monthly Mean ..	65·8	74·3	82·1	78·0	68·3	68·6	66·0	68·4	62·3	79·6	68·5	67·5

TABLE Xd—*Diurnal ranges of horizontal force.*

1919.

Unity=1γ.

1919. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1 ..	37	87	108	79	71	60	51	63	51	202	58	65
2 ..	31	71	72	93	107	44	76	60	82	80	60	52
3 ..	156	69	53	70	96	48	110	79	47	93	50	85
4 ..	136	99	43	140	49	53	69	71	75	117	226	56
5 ..	66	38	66	60	62	51	66	92	38	277	45	55
6 ..	48	54	117	99	62	71	60	55	99	54	48	51
7 ..	58	77	34	41	71	70	90	80	56	36	41	44
8 ..	45	67	70	81	77	78	58	69	38	57	55	59
9 ..	39	89	50	57	49	142	57	56	115	73	59	57
10 ..	40	39	75	69	50	69	55	67	37	59	49	64
11 ..	51	44	64	75	40	68	63	504	47	67	125	55
12 ..	63	48	74	113	75	64	46	155	46	68	68	77
13 ..	99	119	94	60	39	57	53	71	105	73	65	65
14 ..	42	64	115	56	75	49	86	67	59	46	66	102
15 ..	48	70	59	67	66	68	54	81	50	83	56	234
16 ..	120	56	110	129	45	59	68	45	56	55	136	32
17 ..	44	47	56	93	83	99	149	65	72	93	35	35
18 ..	66	50	45	59	74	43	49	53	76	54	44	59
19 ..	51	50	125	42	86	47	73	85	168	61	49	48
20 ..	55	92	99	58	33	64	67	39	82	45	51	61
21 ..	51	123	71	51	109	90	64	42	56	53	62	61
22 ..	40	41	119	36	87	77	63	50	35	206	125	79
23 ..	35	69	76	55	60	86	68	111	76	76	53	65
24 ..	35	20	48	74	92	82	66	41	118	51	60	42
25 ..	35	44	53	60	41	89	47	58	72	58	65	31
26 ..	33	52	70	58	133	64	55	106	65	85	40	38
27 ..	42	92	124	57	45	62	55	46	49	36	41	72
28 ..	69	33	71	69	38	79	71	53	63	76	48	61
29 ..	38	..	39	83	46	110	87	43	57	63	41	35
30 ..	63	..	81	69	62	51	71	78	38	53	89	40
31 ..	140	..	85	..	53	..	59	43	..	51	..	45
Monthly Mean ..	60·5	64·4	76·3	71·8	67·0	69·8	67·9	81·5	67·6	80·7	67·0	62·1

TABLE Xe.—*Diurnal ranges of horizontal force.*

1920.

Unity=1γ.

1920.	MONTH.											
Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	84	34	57	76	108	42	42	42	104	68	51	41
2	51	37	52	38	57	51	31	35	59	33	69	70
3	21	42	58	45	77	47	43	50	136	54	61	27
4	22	59	198	76	60	74	55	63	49	83	81	86
5	23	59	135	78	65	38	57	30	26	68	65	38
6	51	53	65	59	60	59	80	41	51	82	67	31
7	89	105	60	75	58	50	62	62	55	75	34	47
8	66	42	64	54	58	57	59	65	112	72	51	69
9	72	42	56	38	84	68	53	49	25	43	59	56
10	67	47	66	61	51	119	46	28	32	84	51	43
11	44	56	64	45	46	56	38	27	50	21	57	39
12	22	38	117	50	71	34	96	73	40	34	83	51
13	19	34	52	69	157	42	53	39	65	43	47	82
14	41	73	181	60	46	42	61	67	66	53	42	63
15	31	81	94	212	59	38	85	35	55	70	80	48
16	58	167	68	42	41	46	39	47	39	41	73	34
17	73	54	71	82	40	57	46	57	72	93	106	54
18	48	57	67	63	38	80	119	90	35	59	58	63
19	48	58	55	63	47	53	41	47	20	67	34	27
20	78	67	87	73	62	40	53	68	44	51	60	58
21	93	83	122	67	42	50	59	83	47	67	40	31
22	38	57	662	53	37	40	84	43	110	89	39	17
23	53	49	128	75	58	37	91	49	42	53	45	35
24	45	216	102	80	46	74	43	44	44	49	28	54
25	35	38	59	61	36	50	47	51	41	146	41	87
26	60	73	71	66	36	77	47	47	68	79	120	200
27	35	61	99	62	62	44	47	32	82	50	44	60
28	107	40	32	48	122	64	55	37	164	83	48	46
29	29	35	50	67	71	57	46	63	67	84	36	46
30	96	..	75	78	73	41	62	108	29	45	47	38
31	28	..	70	..	40	..	37	49	..	54	..	59
Monthly Mean ..	52·5	64·0	101·2	69·9	61·5	54·2	57·3	52·3	61·0	64·3	57·2	54·8

TABLE XI*a*. —*Diurnal ranges of declination.*

1916.

Unity=1 minute of arc.

1916. Date.	MONTH. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	3·5	3·0	2·7	3·0	5·5	5·0	4·9	5·7	7·6	5·5	2·3	3·1
2	3·6	3·0	3·1	4·8	5·0	5·0	5·2	6·8	5·2	3·9	2·9	2·2
3	2·6	1·7	1·8	5·0	4·6	5·7	7·0	4·9	5·2	3·2	4·0	3·1
4	2·5	2·7	1·3	7·4	3·3	6·7	7·3	5·1	5·1	5·1	2·4	2·7
5	2·1	2·8	2·7	4·3	4·5	4·7	6·0	4·6	5·1	4·9	3·9	2·9
6	3·5	2·3	3·5	3·9	3·7	5·3	5·5	5·0	4·1	3·0	1·7	1.7
7	3·1	1·9	3·5	5·6	5·3	5·8	6·5	5·4	4·6	3·5	3·2	1·7
8	2·8	3·8	6·7	4·4	3·2	7·1	4·7	4·4	6·1	3·7	1·7	2·4
9	2·9	1·9	3·4	3·3	4·8	4·4	4·1	4·5	4·7	2·5	1·9	1·5
10	3·3	2·3	2·5	4·4	3·9	3·3	4·0	5·6	6·2	4·1	2·7	1·5
11	4·8	2·5	3·9	7·5	6·0	6·8	4·9	5·1	5·1	2·8	2·6	1·9
12	5·0	1·6	2·5	6·4	4·5	3·7	5·5	4·9	6·8	4·4	3·1	1·7
13	3·1	2·0	3·8	4·0	4·6	5·1	4·1	7·9	6·6	4·4	1·1	1·6
14	5·3	1·8	1·9	6·2	4·0	6·4	4·4	6·4	7·3	4·5	1·3	2·3
15	4·5	2·0	4·4	7·3	7·0	6·4	4·2	7·3	8·9	3·0	1·8	2·5
16	4·3	1·7	4·8	5·2	5·9	5·7	7·8	6·7	7·5	1·9	1·9	2·4
17	3·4	1·3	3·1	4·6	5·6	4·3	8·3	6·9	4·8	2·9	2·8	1·7
18	3·0	1·5	3·0	3·7	4·0	5·0	5·6	7·6	6·5	2·2	2·8	2·8
19	2·5	1·8	3·7	4·1	4·9	6·5	7·1	6·7	8·0	3·0	1·5	2·6
20	3·0	1·7	3·6	6·7	4·3	5·3	5·3	5·7	6·8	3·2	2·4	2·9
21 ..	1·3	2·3	4·0	6·0	5·8	5·1	5·6	4·9	7·0	2·1	1·5	1·6
22	3·7	3·5	4·0	5·0	7·1	6·9	5·0	4·9	6·1	2·5	2·7	2·4
23	1·7	2·9	4·5	4·9	4·7	7·4	4.9	6·0	4·7	1·4	2·4	3·1
24	3·3	2·7	6·4	5·2	6·6	5·0	5·8	5·5	5·3	1·5	1·6	3·2
25	2·6	2·4	4·3	5·1	6·0	4·1	4·7	6·1	4·1	3·1	2·3	2·1
26	4·1	1·6	4·6	3·6	7·9	5·0	4·3	7·3	6·4	1·9	2·1	3·4
27	3·3	1·7	3·4	6·9	4·8	4·6	6·2	4·8	4·6	1·1	3·7	3·0
28	4·4	2·1	5·2	5·7	7·3	6·0	7·5	6·0	3·5	2·7	3·1	3·3
29	2·6	2·4	5·9	5·2	6·8	3·7	5·9	6·0	4·0	4·3	2·3	2·5
30	3·2	..	4·8	6·1	*..	5·2	6·9	5·5	4·7	1·9	5·1	3·9
31	2·0	..	4·2	..	5·8	..	6·9	5·9	..	1·2	..	5·1
Monthly Mean ..	3·26	2·24	3·78	5·18	5·25	5·37	5·68	5·81	5·75	3·08	2·49	2·54

The diurnal ranges are derived from twenty-four hourly tabulations of the declination magnetograms during the day. The ranges are non-periodic, *i.e.*, the maximum and the minimum values are taken at whatever hour of the day they have occurred. Days are reckoned from 10 A.M. to 10 A.M. of the following day.

*Rejected as the curve was lost owing to the stoppage of the recording cylinder.

TABLE XIb.—*Diurnal ranges of declination.*

1917.

Unity=1 minute of arc.

1917. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1 ..	5·0	4·0	3·9	3·5	**7·1**	4·6	**2·9**	6·4	5·9	**6·4**	2·5	3·0
2 ..	4·6	4·1	3·0	6·2	6·0	5·7	5·5	6·3	7·2	4·2	2·2	1·7
3 ..	3·4	5·2	**1·4**	3·8	5·8	4·0	6·7	7·0	6·9	4·7	2·3	3·9
4 ..	**6·5**	4·6	4·5	4·0	4·9	5·6	4·5	7·0	5·7	4·1	1·7	2·5
5 ..	2·6	4·7	2·6	5·1	4·7	4·8	2·9	4·6	8·1	3·7	2·0	2·1
6 ..	2·9	3·4	4·0	3·3	4·9	3·4	7·5	4·7	6·6	2·8	3·0	2·1
7 ..	3·2	3·9	3·7	5·3	3·3	4·5	5·9	7·1	6·4	4·1	2·0	2·4
8 ..	3·1	**1·3**	4·2	4·2	4·4	6·2	6·2	**6·1**	5·5	2·1	1·6	2·1
9 ..	2·3	2·9	6·3	3·4	6·4	5·2	5·9	6·2	6·8	4·5	2·2	2·0
10 ..	3·2	4·2	3·6	3·4	4·7	4·6	6·2	7·4	4·9	3·1	1·8	3·2
11 ..	**1·6**	4·1	3·9	4·4	3·7	**3·2**	4·7	6·2	6·6	2·5	2·0	2·5
12 ..	2·2	1·7	4·8	4·5	3·3	5·7	4·3	5·3	**9·0**	3·7	2·9	1·9
13 ..	2·7	1·6	4·2	5·3	3·7	7·0	6·8	7·9	7·6	5·0	**1·4**	2·0
14 ..	2·7	2·5	4·2	4·6	**3·2**	4·8	4·0	5·7	8·3	4·3	**3·5**	2·9
15 ..	3·3	1·9	4·5	4·3	4·8	6·5	3·9	8·6	7·3	2·6	2·4	3·7
16 ..	2·4	2·8	3·4	5·3	4·8	5·7	5·4	7·0	6·5	3·5	1·7	6·3
17 ..	4·9	3·8	3·8	3·9	5·8	6·5	4·5	6·4	6·1	4·3	1·9	2·3
18 ..	2·3	1·7	3·3	5·8	5·4	6·6	4·4	5·9	7·9	3·1	2·2	**6·8**
19 ..	3·5	3·3	3·4	4·0	6·1	6·5	3·6	5·4	7·7	2·7	2·5	3·2
20 ..	1·8	2·8	5·0	6·4	6·3	3·8	5·4	8·4	5·8	3·2	2·4	2·5
21 ..	3·2	2·7	4·1	5·5	5·7	4·9	6·7	7·3	4·7	1·9	1·9	1·9
22 ..	3·5	1·9	**6·9**	4·4	6·8	6·4	6·8	**3·8**	5·2	1·9	1·6	**1·5**
23 ..	3·7	2·2	4·2	3·6	4·5	7·1	4·1	5·4	6·6	**1·7**	1·7	2·8
24 ..	3·4	3·1	3·7	4·5	4·8	**7·6**	5·8	5·3	6·3	2·2	1·9	3·9
25 ..	4·5	3·5	3·1	**2·7**	5·1	4·8	7·2	7·7	6·5	2·4	2·9	3·4
26 ..	3·5	2·5	3·1	5·9	5·2	5·6	4·7	7·2	4·8	1·8	2·6	2·8
27 ..	4·2	**5·3**	2·5	4·9	4·6	4·8	3·3	7·3	**3·3**	2·1	2·5	2·3
28 ..	4·2	3·7	3·1	3·9	4·2	4·3	7·0	7·3	4·5	3·0	2·0	5·2
29 ..	4·7	..	3·9	5·8	6·1	4·1	4·3	**9·3**	5·5	2·1	2·5	2·9
30 ..	4·2	..	3·1	5·6	5·7	3·5	4·1	8·5	5·0	2·7	1·8	3·2
31 ..	5·2	..	6·1	..	5·2	..	**8·1**	7·7	..	3·0	..	2·9
Monthly Mean..	3·50	3·19	3·92	4·58	5·07	5·27	5·27	6·66	6·31	3·21	2·19	2·96

TABLE XIc.—*Diurnal ranges of declination.*

1918.

Unity=1 minute of arc.

1918. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1 ..	2·2	1·6	3·5	3·7	6·9	5·7	5·9	4·7	7·0	4·1	**4·1**	2·5
2 ..	2·2	3·0	**1·6**	**4·4**	6·0	5·0	5·4	7·6	5·8	3·6	1·7	1·9
3 ..	**2·1**	2·4	1·8	5·2	5·8	4·4	4·9	5·8	5·6	3·4	2·2	3·2
4 ..	2·7	1·7	1·7	5·7	5·5	5·1	4·6	6·5	6·2	3·1	3·0	1·9
5 ..	3·0	3·0	1·9	4·0	5·5	6·0	5·8	6·4	6·8	2·9	**1·6**	2·5
6 ..	2·1	2·3	2·2	4·5	6·0	7·2	5·4	4·9	6·0	3·1	3·0	3·5
7 ..	3·2	3·1	1·9	4·5	6·9	5·9	6·8	4·4	4·8	**1·9**	2·6	3·4
8 ..	2·7	3·5	2·2	7·0	5·1	4·8	5·3	6·2	6·8	4·5	1·9	4·5
9 ..	3·7	2·9	3·1	4·7	4·9	5·5	4·5	7·0	**7·1**	4·3	2·3	4·9
10 ..	3·4	3·0	2·5	6·2	**3·5**	7·6	5·0	6·5	6·9	3·0	2·8	3·3
11 ..	2·7	2·8	3·5	6·0	4·8	6·1	5·4	6·3	6·0	4·6	2·8	2·8
12 ..	3·8	3·1	3·5	**7·3**	4·0	3·1	5·8	4·8	6·4	3·9	3·0	2·1
13 ..	2·7	4·0	3·2	4·6	6·0	3·8	5·5	**3·7**	5·7	4·0	1·9	3·9
14 ..	4·2	**4·2**	4·0	5·2	6·7	5·3	5·9	3·8	6·1	3·4	2·1	2·4
15 ..	3·3	2·2	3·0	4·0	5·5	5·7	4·6	7·8	6·1	3·8	1·6	2·6
16 ..	2·8	2·7	4·9	4·8	6·5	3·9	4·7	4·1	4·3	**5·9**	3·2	2·2
17 ..	3·7	2·5	2·8	6·2	4·4	**2·3**	5·2	5·6	**4·0**	3·3	3·2	2·6
18 ..	3·8	1·5	2·8	6·6	4·3	4·3	4·7	5·1	5·3	5·2	2·7	1·7
19 ..	3·4	3·2	3·0	4·5	3·5	4·2	4·1	4·6	4·8	4·4	2·0	2·9
20 ..	2·4	2·5	4·0	**2·7**	4·1	5·2	3·8	6·2	5·8	5·1	1·9	2·3
21 ..	3·5	2·0	**6·2**	5·4	4·7	6·3	**3·0**	6·2	6·4	2·9	2·8	2·7
22 ..	3·4	3·1	3·4	4·0	4·4	4·7	4·0	7·4	6·0	3·0	2·5	1·7
23 ..	3·4	3·9	4·6	5·5	5·5	**8·3**	3·6	**7·9**	5·3	3·4	3·2	2·8
24 ..	**5·2**	**1·3**	4·3	4·9	5·7	5·8	4·4	6·4	4·2	2·5	3·3	2·7
25 ..	2·4	2·3	4·1	6·7	4·8	5·1	5·5	7·3	6·2	2·2	1·9	**6·2**
26 ..	3·8	2·6	3·9	5·2	5·6	4·7	**3·0**	5·9	5·8	2·5	2·7	3·5
27 ..	3·0	2·3	6·2	4·1	5·9	6·5	6·1	6·5	6·7	2·7	2·7	2·8
28 ..	2·6	2·6	6·0	4·5	5·5	5·8	4·3	5·4	4·9	2·7	3·0	2·6
29 ..	3·1	..	3·1	4·0	**7·7**	4·9	3·7	5·5	4·4	2·6	3·8	2·3
30 ..	2·3	..	5·2	6·6	6·6	4·8	6·0	6·8	4·1	3·2	1·9	**1·5**
31 ..	2·6	..	3·7	..	6·5		4·2	7·6	..	3·7	..	1·9
Monthly Mean..	3·08	2·69	3·48	5·09	5·45	5·27	5·04	5·96	5·72	3·51	2·58	2·83

TABLE XId.—*Diurnal ranges of declination.*

1919.

Unity=1 minute of arc.

1919. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1 ..	3·1	3·6	3·5	4·3	5·1	4·0	6·6	5·9	5·9	**6·9**	2·2	1·7
2 ..	3·7	3·5	2·5	4·4	4·8	5·1	5·3	5·6	6·3	4·3	3·4	**1·5**
3 ..	4·2	3·2	2·2	3·5	3·5	5·8	4·0	7·5	5·2	3·4	2·1	2·1
4 ..	**5·3**	2·3	2·5	3·4	5·6	7·4	5·1	3·9	6·9	4·7	**4·1**	3·0
5 ..	4.5	3·5	2·9	4·0	4·9	5·0	3·3	3·8	3·7	5·3	1·6	2·1
6 ..	3·4	3·0	2·5	4·9	**6·6**	6·3	5·6	5·5	3·2	3·6	**1·2**	2·9
7 ..	4·1	2·7	1·9	3·7	5·4	5·9	**7·5**	3·8	5·2	2·4	1·6	1·9
8 ..	2·8	2·9	**1·6**	6·0	4·1	4·6	5·8	5·1	6·2	4·3	1·7	2·7
9 ..	3.0	4·4	2·8	5·5	5·9	7·6	4·6	6·1	8·7	2·7	1·6	1·6
10 ..	2·9	3·6	2·8	5·9	4·2	**7·8**	4·6	5·1	**9·7**	3·0	2·3	2·6
11 ..	2·3	3·6	2·9	4·5	**3·0**	6·2	6·0	**9·7**	6·6	2·9	2·3	1·7
12 ..	3·1	3·1	1·7	4·9	6·6	6·4	4·4	7·4	5·9	2·9	1·9	2·3
13 ..	4·3	1·9	3·2	5·5	5·3	5·0	5·7	5·2	5·4	2·3	2·7	1·5
14 ..	2·4	2·4	3·0	**3·1**	5·5	5·6	4·2	4·1	6·9	**1·5**	1·9	3·4
15 ..	2·5	3·5	3·2	4·5	5·5	6·4	4·1	6·4	5·7	2·5	1·9	**6·0**
16 ..	3·5	4.3	3·4	4·4	6·6	5·7	5·1	5·5	4·8	1·5	3·3	1·9
17 ..	3·2	**5·5**	2·8	4·9	6·3	4·3	5·9	4·3	**2·1**	4·1	2·7	1·6
18 ..	2·3	3·8	3·9	4·3	5·6	4·2	3·6	4·3	3·7	2·5	1·6	2·2
19 ..	2·8	2·7	3·3	3·5	6·5	**3·1**	4·2	**3·6**	4·8	1·9	1·9	1·9
20 ..	2·5	4·0	5·2	4·5	5·5	4·2	3·8	5·7	3·8	1·6	2·1	3·2
21 ..	2·5	3·3	3·1	5·9	5·3	6·1	4·0	5·5	6·3	3·2	1·7	2·8
22 ..	3·2	2·4	4·2	4·6	4·2	4·7	5·8	6·2	5·3	4·2	3·2	2·4
23 ..	2·6	3·3	3·2	4·9	4·2	6·3	3·5	5·3	7·0	2·6	1·9	3·4
24 ..	2·8	**1·5**	2·8	4·1	3·1	5·1	**3·2**	5·5	5·3	3·2	3·0	3·1
25 ..	2·7	2·3	2·6	4·3	3·3	7·1	4·3	5·7	4·8	2·6	1·7	2·0
26 ..	3·4	2·3	4·7	5·0	3·1	5·5	6·9	5·8	5·2	3·1	2·5	1·9
27 ..	2·8	3·2	5·2	5·9	4·3	5·2	4·7	6·8	4·4	2·6	1·6	3·2
28 ..	**2·2**	3·1	2·7	5·2	4·7	3·9	7·1	6·1	4·8	2·4	1·3	2·7
29 ..	2·6	..	3·0	4·3	4·8	7·7	6·4	6·3	5·3	1·9	2·2	2·7
30 ..	3·6	..	**6·0**	**6·3**	6·2	6·0	5·7	6·4	4·4	3·5	2·6	2·5
31 ..	3·7	..	4·8	..	4·8	..	7·5	6·0	..	2·7	..	2·7
Monthly Mean ..	3·16	3·17	3·23	4·67	4·98	5·61	5·11	5·62	5·45	3·11	2·19	2·49

TABLE XIe.—*Diurnal ranges of declination.*

1920.

Unity=1 minute of arc.

1920. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1 ..	1·7	4·4	2·1	3·8	3·7	7·3	4·0	5·7	6·7	4·7	1·9	3·2
2 ..	1·9	3·8	1·7	6·0	5·7	5·7	5·3	4·5	6·1	5·5	2·0	3·0
3 ..	1·4	3·2	1·7	4·1	6·4	6·4	3·3	7·2	6·5	4·9	1·5	2·6
4 ..	1·6	2·6	5·9	4·7	**2·5**	**7·6**	5·9	6·3	7·0	4·2	1·8	4·6
5 ..	1·9	3·8	3·0	2·8	5·7	4·1	4·5	**3·9**	5·6	4·8	1·9	**1·4**
6 ..	2·1	4·0	2·6	4·3	3·7	6·7	6·1	5·9	5·8	**5·8**	3·0	2·3
7 ..	2·5	1·9	2·2	4·7	6·2	6·2	6·0	5·5	3·5	3·1	**3·9**	2·3
8 ..	2·3	1·9	**1·3**	4·2	6·5	3·9	5·3	4·0	5·2	2·9	**1·2**	2·3
9 ..	3·1	4·0	1·5	**2·1**	5·3	6·0	3·7	5·0	5·5	3·4	2·3	2·3
10 ..	3·1	3·6	2·1	3·5	6·4	6·5	4·5	4·9	5·3	3·2	2·3	2·1
11 ..	2·7	3·5	1·9	2·1	4·6	5·0	5·3	6·0	4·5	4·4	3·7	1·7
12 ..	2·1	3·4	5·7	3·3	4·9	6·2	**2·8**	5·9	5·0	3·7	2·3	2·2
13 ..	2·9	2·7	2·7	4·9	6·0	6·1	5·7	7·0	6·6	2·5	1·2	2·8
14 ..	4·3	3·9	5·2	5·3	6·3	4·3	4·0	7·1	4·3	4·1	2·3	2·1
15 ..	**6·4**	2·4	3·0	4·7	5·3	6·6	5·8	6·2	4·0	4·7	2·8	2·8
16 ..	2·6	4·5	3·7	4·6	4·3	6·9	7·0	7·9	4·1	2·0	2·7	2·1
17 ..	4·7	2·9	3·5	5·0	4·2	6·8	6·1	6·0	5·5	4·1	3·4	3·0
18 ..	2·8	4·0	3·2	4·8	4·5	6·4	6·4	7·3	5·9	2·9	3·1	2·4
19 ..	2·9	4·5	4·3	5·0	**7·4**	5·9	5·3	5·5	5·7	**1·5**	2·5	2·3
20 ..	2·8	4·4	5·0	4·2	4·3	6·2	5·3	5·0	3·5	2·6	2·9	2·8
21 ..	3·6	3·9	5·0	3·7	5·7	5·3	5·5	5·0	**3·2**	2·5	2·3	2·1
22 ..	3·3	4·1	**10·9**	3·7	4·2	7·2	4·5	5·0	5·3	2·7	1·9	1·6
23 ..	4·7	**4·7**	5·8	4·0	5·0	5·2	5·4	4·8	5·3	2·6	1·6	2·9
24 ..	2·5	4·0	5·0	5·4	4·6	6·0	3·2	5·3	**4·7**	2·1	1·3	2·5
25 ..	2·5	2·6	3·7	3·7	4·5	3·9	6·2	5·1	6·4	2·3	1·2	3·4
26 ..	2·4	2·1	3·0	5·6	6·3	5·9	6·0	6·0	1·2	2·3	3·1	**5·5**
27 ..	2·5	2·7	4·2	**6·6**	3·1	**3·4**	3·8	7·6	5·3	2·2	1·5	5·0
28 ..	3·1	**1·7**	6·2	6·0	5·7	6·7	4·4	4·9	**7·5**	2·5	2·1	3·0
29 ..	2·5	2·5	6·7	5·2	4·1	5·1	**7·7**	8·2	5·1	2·4	3·8	4·0
30 ..	2·7	..	4·3	4·3	5·4	7·0	4·9	7·7	6·7	1·6	1·9	3·5
31 ..	2·3	..	4·2	..	4·3	..	5·3	**8·2**	..	2·1	..	3·2
Monthly Mean ..	2·84	3·37	3·91	4·41	5·06	5·88	5·14	5·95	5·40	3·24	2·31	2·81

TABLE XIIa.—*Showing the mean diurnal inequality of Horizontal Force for each month of the year 1916, and for the whole year.*

Unity=0·1γ

1916. Bombay Civil Time.	Month. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
9 51	+124	+224	+311	+363	+271	+265	+248	+229	+202	+264	+265	+193	+247
10 51	+191	+285	+405	+432	+328	+344	+308	+271	+265	+355	+312	+227	+310
11 51	+184	+292	+378	+405	+304	+331	+312	+272	+271	+366	+291	+215	+302
12 51	+153	+219	+306	+318	+238	+291	+281	+233	+191	+252	+194	+142	+203
13 51	+ 94	+125	+235	+218	+115	+221	+188	+139	+104	+142	+ 82	+ 68	+144
14 51	+ 48	+ 42	+136	+ 88	+ 34	+106	+ 68	+ 48	+ 37	+ 7	+ 4	+ 10	+ 52
15 51	+ 3	− 21	+ 21	− 18	− 37	− 33	− 38	− 11	− 35	− 80	− 82	− 40	− 31
16 51	− 43	− 55	− 56	− 99	− 87	−115	−110	− 76	− 71	−112	−127	− 87	− 87
17 51	− 71	− 78	−105	−136	−111	−157	−135	−121	− 97	−133	−118	−102	−114
18 51	− 92	− 91	−148	−130	−125	−163	−142	−149	−107	−156	−150	− 87	−128
19 51	− 98	− 98	−171	−164	−131	−149	−163	−140	−119	−132	−164	−115	−137
20 51	−101	−128	−227	−178	−146	−158	−140	−117	−111	−178	−135	−106	−144
21 51	− 99	−120	−204	−164	−149	−148	−106	−100	− 94	−148	−132	−109	−131
22 51	− 72	−140	−154	−175	−120	−145	−113	− 84	− 79	−133	−109	− 84	−117
23 51	− 76	−147	−151	−166	−112	−128	−112	− 76	− 78	− 98	− 57	− 73	−106
0 51	− 92	−103	−146	−154	−111	−129	− 94	− 66	− 48	− 44	− 71	− 71	− 94
1 51	− 35	−108	−124	−159	−102	−116	− 92	− 67	− 26	− 76	− 83	− 61	− 87
2 51	− 64	− 94	− 87	−146	− 88	−118	−100	− 70	− 10	− 55	− 58	− 50	− 78
3 51	− 61	− 80	− 87	−120	− 83	−118	−105	− 61	− 30	− 61	− 54	− 58	− 77
4 51	− 13	− 67	− 95	−107	− 91	− 91	− 99	− 70	− 24	− 56	− 41	− 28	− 65
5 51	− 2	− 43	− 84	− 97	− 66	− 67	− 67	− 73	− 56	− 57	− 43	− 13	− 56
6 51	+ 11	− 17	− 93	− 50	− 3	+ 1	− 15	− 45	− 84	− 35	+ 11	+ 25	− 25
7 51	+ 33	+ 53	− 2	+ 36	+ 88	+ 84	+ 70	+ 13	− 58	+ 30	+ 88	+ 72	+ 42
8 51	+ 74	+143	+140	+207	+192	+186	+150	+125	+ 64	+133	+180	+132	+144
Range ..	292	439	632	610	477	507	475	421	390	544	476	342	454
* Summed Range.	1,834	2,778	3,866	4,130	3,132	3,662	3,256	2,656	2,261	3,103	2,851	2,168	2,921

TABLE XIIb.—*Showing the mean diurnal inequality of Horizontal Force for each month of the year 1917, and for the whole year.*

Unity=0·1γ

1917. Bombay Civil Time.	Month. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
9 51	+136	+207	+344	+399	+287	+322	+348	+229	+281	+319	+338	+306	+293
10 51	+243	+272	+446	+473	+368	+403	+441	+344	+387	+416	+406	+379	+381
11 51	+262	+288	+422	+441	+367	+413	+463	+373	+423	+436	+388	+352	+386
12 51	+229	+268	+321	+333	+342	+371	+392	+328	+401	+327	+296	+265	+323
13 51	+131	+177	+206	+198	+227	+290	+275	+257	+287	+178	+152	+182	+213
14 51	+ 49	+ 75	+ 82	+ 82	+113	+172	+139	+137	+137	+ 45	+ 57	+103	+ 99
15 51	− 9	+ 3	− 18	− 8	+ 5	+ 14	+ 2	+ 44	+ 19	− 40	− 40	− 5	− 3
16 51	− 57	− 48	− 54	−113	− 71	− 76	− 78	− 61	− 47	− 89	− 87	− 70	− 71
17 51	−111	− 68	− 74	−154	−127	−119	−142	−121	− 76	−126	− 93	− 94	−109
18 51	−116	− 98	−110	−164	−145	−148	−160	−165	−114	−144	−143	−116	−136
19 51	−129	−132	−157	−173	−157	−178	−174	−171	−140	−170	−187	−165	−161
20 51	−123	−130	−190	−189	−166	−198	−182	−182	−169	−184	−227	−217	−180
21 51	−107	−139	−202	−175	−176	−193	−182	−173	−161	−176	−200	−226	−176
22 51	− 93	−159	−174	−170	−159	−181	−188	−182	−153	−149	−175	−230	−168
23 51	− 82	−167	−179	−156	−148	−172	−181	−157	−156	−161	−152	−198	−159
0 51	− 82	−122	−132	−154	−161	−164	−176	−113	−157	−153	−140	−192	−145
1 51	− 72	−101	−135	−148	−132	−168	−167	−113	−124	−130	−139	−150	−132
2 51	− 68	− 97	−149	−137	−137	−169	−165	− 64	−126	−131	−143	−120	−125
3 51	− 56	− 72	−132	−123	−127	−169	−141	− 50	−119	−107	−126	−112	−111
4 51	− 17	− 68	−129	−120	−120	−158	−127	− 89	−119	− 78	−103	− 75	−100
5 51	− 7	− 58	−116	−107	− 99	−109	−119	− 69	−123	− 66	− 69	− 47	− 82
6 51	− 5	− 23	− 77	− 73	− 43	− 50	− 71	− 95	−142	− 40	+ 19	+ 37	− 47
7 51	+ 21	+ 54	+ 24	+ 32	+ 73	+ 56	+ 33	− 20	− 90	+ 45	+122	+149	+ 42
8 51	+ 61	+143	+183	+209	+184	+211	+161	+117	+ 85	+181	+250	+240	+169
Range ..	391	455	648	662	544	611	651	555	592	620	633	609	566
*Summed Range.	2,266	2,969	4,056	4,331	3,934	4,504	4,507	3,654	4,036	3,891	4,052	4,030	3,811

* Summed range means sum without regard to sign of the twenty-four ordinates of the diurnal inequality.

For the magnitude of the temperature and aperiodic corrections applicable to the diurnal inequalities, *vide* tables XVI and XVIII.

TABLE XIIc.—*Showing the mean diurnal inequality of Horizontal Force for each month of the year 1918 and for the whole year.*

Unity=0·1γ.

1918. Bombay Civil Time.	Month. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
9 51	+270	+267	+316	+350	+289	+286	+285	+247	+207	+281	+301	+193	+274
10 51	+355	+339	+414	+426	+365	+360	+344	+329	+265	+404	+353	+250	+350
11 51	+363	+410	+413	+426	+368	+374	+349	+340	+288	+427	+349	+258	+364
12 51	+298	+335	+351	+357	+308	+340	+308	+312	+232	+287	+280	+200	+301
13 51	+188	+231	+235	+244	+193	+250	+244	+210	+144	+112	+162	+110	+194
14 51	+100	+ 97	+108	+108	+ 89	+109	+155	+108	+ 66	+ 3	+ 58	+ 47	+ 87
15 51	+ 18	− 20	+ 2	+ 2	− 4	− 28	+ 42	+ 30	− 23	− 28	− 17	− 15	− 3
16 51	− 60	− 78	− 43	− 91	− 87	−117	− 75	− 59	− 78	− 93	− 97	− 79	− 80
17 51	−120	− 87	− 91	−118	−144	−162	−113	− 99	−103	−118	−108	−102	−114
18 51	−141	−110	−153	−131	−153	−186	−202	−127	−145	−145	−151	−122	−147
19 51	−173	−139	−198	−166	−161	−172	−153	−118	−156	−186	−161	−155	−161
20 51	−190	−156	−208	−195	−171	−175	−152	− 93	−180	−221	−183	−149	−173
21 51	−210	−177	−216	−189	−143	−158	−169	−109	−161	−209	−178	−180	−175
22 51	−184	−191	−165	−171	−141	−137	−163	−113	−120	−168	−132	−161	−154
23 51	−159	−169	−156	−157	−119	−135	−166	−120	− 80	−116	−116	− 94	−132
0 51	−144	−162	−126	−153	−129	−136	−148	−142	− 66	− 88	−121	− 88	−125
1 51	−127	−113	−123	−135	−121	−124	−142	−145	− 29	− 94	−116	− 22	−108
2 51	−112	−132	−104	−131	−115	−115	−127	−125	− 10	− 74	−115	− 58	−101
3 51	− 99	−110	−108	−116	−109	−111	−137	−110	− 17	− 75	− 91	− 45	− 94
4 51	− 71	− 89	− 99	−128	−123	− 91	−109	−116	− 9	− 58	− 85	− 30	− 84
5 51	− 57	− 73	−116	−104	−106	− 92	− 95	−101	− 8	− 43	− 70	− 6	− 73
6 51	+ 3	− 32	−106	− 77	− 41	− 41	− 39	− 75	− 52	− 40	− 16	+ 24	− 41
7 51	+ 76	+ 20	+ 8	− 12	+ 67	+ 66	+ 56	− 22	− 24	+ 63	+ 71	+ 79	+ 37
8 51	+174	+138	+165	+157	+190	+194	+157	+100	+ 62	+175	+182	+148	+153
Range ..	573	601	630	621	539	560	551	485	468	648	536	438	539
Summed Range ..	3,692	3,675	4,024	4,144	3,736	3,959	3,930	3,350	2,525	3,508	3,513	2,615	3,525

TABLE XIId.—*Showing the mean diurnal inequality of Horizontal Force for each month of the year 1919 and for the whole year.*

Unity=0·1γ.

1919. Bombay Civil Time.	Month. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
9 51	+169	+231	+295	+323	+208	+320	+278	+260	+212	+259	+325	+264	+262
10 51	+248	+293	+363	+391	+287	+385	+377	+337	+304	+302	+348	+303	+328
11 51	+276	+324	+361	+370	+274	+366	+391	+405	+308	+287	+304	+257	+327
12 51	+201	+276	+281	+315	+235	+326	+377	+392	+277	+182	+212	+188	+272
13 51	+107	+159	+156	+209	+169	+243	+303	+239	+185	+119	+119	+ 68	+173
14 51	+ 45	+ 48	+ 49	+108	+ 74	+108	+157	+ 32	+ 86	+ 62	+ 50	− 22	+ 66
15 51	− 7	− 67	− 61	+ 1	+ 2	− 9	+ 18	− 40	+ 9	− 37	− 3	− 65	− 22
16 51	− 38	−121	−129	− 38	− 68	− 95	− 91	−140	− 35	− 86	− 62	− 93	− 83
17 51	− 60	−140	−118	− 86	−115	−151	−131	−172	− 60	−134	− 85	−129	−115
18 51	− 76	−135	−145	−135	−152	−149	−155	−173	− 95	−119	−143	−136	−134
19 51	−103	−129	−138	−188	−167	−168	−168	−220	−136	− 62	−179	−171	−152
20 51	−113	−125	−155	−168	−180	−169	−171	−180	−167	−124	−182	−167	−158
21 51	−119	− 88	−160	−180	−154	−167	−172	−147	−162	−127	−196	−151	−152
22 51	−114	− 75	−162	−160	−126	−155	−180	−127	−163	−136	−176	−100	−139
23 51	−116	−106	−133	−146	−109	−147	−165	−126	−126	−141	−155	− 96	−131
0 51	− 90	− 68	−110	−138	−100	−137	−170	−108	−114	−104	−138	−106	−115
1 51	−131	−110	−111	−110	− 74	−132	−151	−101	− 84	− 79	−116	− 80	−107
2 51	− 94	− 95	− 67	−126	− 60	−135	−130	− 86	− 74	− 65	−107	− 71	− 93
3 51	− 86	− 87	− 80	−118	− 63	−132	−125	− 80	− 53	− 62	−100	− 41	− 86
4 51	− 31	− 69	− 84	− 99	− 57	−127	−117	− 40	− 34	− 58	− 78	− 25	− 68
5 51	− 11	− 54	− 55	− 98	− 54	−109	− 92	− 61	− 30	− 48	− 39	+ 2	− 54
6 51	+ 18	− 17	− 30	− 81	− 3	− 32	− 58	− 35	− 65	− 23	+ 30	+ 53	− 20
7 51	+ 28	+ 30	+ 56	+ 6	+ 54	+ 64	+ 36	+ 36	− 52	+ 58	+134	+122	+ 48
8 51	+ 99	+125	+173	+148	+173	+209	+139	+135	+ 70	+136	+238	+199	+154
Range ..	407	464	525	579	467	554	571	625	475	443	544	474	486
Summed Range ..	2,380	2,972	3,472	3,742	2,961	4,035	4,252	3,672	2,901	2,810	3,519	2,909	3,259

TABLE XIIe.—*Showing the mean diurnal inequality of Horizontal Force for each month of the year 1920, and for the whole year.*

Unity=0·1γ

1920. Bombay Civil Time.	Month. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
9 51	+180	+230	+391	+318	+290	+245	+277	+195	+234	+226	+234	+213	+253
10 51	+241	+292	+475	+373	+331	+294	+340	+256	+287	+302	+272	+257	+310
11 51	+243	+319	+453	+380	+305	+292	+301	+350	+280	+322	+236	+233	+301
12 51	+192	+270	+379	+314	+229	+241	+240	+228	+227	+253	+181	+174	+244
13 51	+125	+184	+225	+210	+141	+154	+150	+148	+176	+140	+100	+ 83	+153
14 51	+ 70	+113	+119	+ 69	+ 36	+ 64	+ 66	+ 62	+ 80	+ 44	+ 16	+ 5	+ 62
15 51	+ 14	+ 46	+ 16	− 51	− 63	− 14	− 37	− 25	− 18	− 51	− 38	− 48	− 22
16 51	− 47	− 48	+ 1	− 97	− 99	− 82	−113	− 72	− 78	− 99	− 72	−113	− 77
17 51	− 88	− 90	− 47	−154	−135	−134	−134	−102	− 78	−120	− 83	−152	−110
18 51	−107	−131	−172	−179	−125	−130	−131	−109	−119	−166	−115	−164	−137
19 51	−118	−139	−247	−165	−130	−121	−125	−112	−153	−185	−147	−151	−150
20 51	−134	−167	−299	−179	−134	−121	−134	−119	−121	−171	−167	−143	−157
21 51	−122	−175	−263	−155	−142	−128	−124	−102	−124	−152	−159	−143	−149
22 51	−128	−188	−251	−140	−127	−116	−128	− 91	− 92	−128	−169	−106	−139
23 51	−104	−186	−237	−137	−113	−106	−121	− 64	− 85	−103	−117	−103	−123
0 51	− 87	−138	−167	−106	−100	−109	−109	− 69	− 39	− 93	− 93	− 88	−100
1 51	− 70	−135	−189	− 86	− 99	−104	−106	− 73	− 90	− 73	− 74	− 72	− 98
2 51	− 85	−115	−183	− 71	−100	− 95	−109	− 95	− 42	− 45	− 49	− 36	− 85
3 51	− 86	− 94	−111	− 80	− 86	− 95	− 99	− 70	− 35	− 38	− 34	− 3	− 69
4 51	− 45	− 61	−109	− 61	− 82	− 78	− 96	− 69	− 52	− 20	− 22	+ 12	− 57
5 51	− 21	− 31	− 94	− 59	− 64	− 49	− 69	− 65	− 68	− 19	+ 1	+ 23	− 43
6 51	+ 6	− 1	− 24	− 49	− 4	− 4	− 15	− 36	−102	− 19	+ 31	+ 52	− 14
7 51	+ 62	+ 72	+ 78	− 19	+ 86	+ 60	+ 82	+ 23	− 53	+ 53	+103	+110	+ 55
8 51	+106	+168	+255	+128	+190	+137	+190	+110	+ 71	+142	+165	+159	+152
Range..	377	507	774	559	473	428	474	375	442	507	441	421	467
Summed Range..	2,480	3,393	4,785	3,580	3,211	2,973	3,296	2,545	2,706	2,964	2,678	2,643	3,060

TABLE XIIf.—*Showing for the summer months (April to September), the winter months (January to March and October to December) and the whole year, the mean diurnal inequality of Horizontal Force during the period 1916 to 1920.*

Unity=0·1γ

Years.	1916.			1917.			1918.			1919.			1920.		
Bombay Civil Time.	April to September.	January to March and October to December.	Year.	April to September.	January to March and October to December.	Year.	April to September.	January to March and October to December.	Year.	April to September.	January to March and October to December.	Year.	April to September.	January to March and October to December.	Year.
H. m.															
9 51	+263	+230	+247	+311	+275	+293	+277	+271	+274	+267	+257	+262	+260	+246	+253
10 51	+325	+296	+310	+403	+360	+381	+348	+353	+350	+347	+309	+328	+313	+307	+310
11 51	+316	+288	+302	+413	+358	+386	+357	+370	+364	+352	+301	+327	+301	+301	+301
12 51	+259	+146	+203	+361	+284	+323	+309	+292	+301	+321	+223	+272	+247	+241	+244
13 51	+164	+124	+144	+256	+171	+213	+214	+173	+194	+225	+121	+173	+163	+143	+153
14 51	+ 63	+ 41	+ 52	+130	+ 69	+ 99	+106	+ 69	+ 87	+ 94	+ 39	+ 66	+ 63	+ 61	+ 62
15 51	− 29	− 33	− 31	+ 13	− 18	− 3	+ 3	− 10	− 3	− 3	− 40	− 22	− 35	− 10	− 22
16 51	− 93	− 80	− 87	− 74	− 67	− 71	− 85	− 75	− 80	− 78	− 88	− 83	− 90	− 63	− 77
17 51	−126	−101	−114	−123	− 94	−109	−123	−104	−114	−119	−111	−115	−123	− 97	−110
18 51	−136	−121	−128	−149	−121	−136	−157	−137	−147	−143	−126	−134	−132	−143	−137
19 51	−144	−130	−137	−165	−157	−161	−154	−169	−161	−175	−130	−152	−135	−165	−150
20 51	−142	−146	−144	−181	−179	−180	−161	−185	−173	−173	−144	−158	−135	−180	−157
21 51	−127	−135	−131	−177	−175	−176	−155	−195	−175	−164	−140	−152	−129	−169	−149
22 51	−119	−115	−117	−172	−163	−168	−141	−167	−154	−152	−127	−139	−116	−162	−139
23 51	−112	−100	−106	−162	−157	−159	−129	−135	−132	−137	−125	−131	−104	−142	−123
0 51	−100	− 88	− 94	−154	−137	−145	−129	−121	−125	−128	−103	−115	− 89	−111	−100
1 51	− 94	− 81	− 87	−142	−121	−132	−116	− 99	−108	−109	−105	−107	− 93	−102	− 98
2 51	− 88	− 68	− 78	−133	−118	−125	−104	− 99	−101	−102	− 83	− 93	− 85	− 85	− 85
3 51	− 86	− 67	− 77	−121	−101	−111	−100	− 88	− 94	− 95	− 76	− 86	− 77	− 61	− 69
4 51	− 80	− 50	− 65	−122	− 78	−100	− 96	− 72	− 84	− 79	− 57	− 68	− 73	− 41	− 57
5 51	− 71	− 40	− 56	−104	− 61	− 82	− 84	− 61	− 73	− 74	− 34	− 54	− 62	− 23	− 43
6 51	− 33	− 16	− 25	− 79	− 15	− 47	− 54	− 28	− 41	− 46	+ 5	− 20	− 35	+ 7	− 14
7 51	+ 39	+ 46	+ 42	+ 14	+ 69	+ 42	+ 22	+ 53	+ 37	+ 24	+ 71	+ 48	+ 30	+ 80	+ 55
8 51	+154	+135	+144	+161	+176	+169	+143	+164	+153	+146	+162	+154	+138	+166	+152
Range..	469	442	454	594	539	566	518	565	539	527	453	486	448	487	467
Summed Range..	3,163	2,677	2,921	4,120	3,524	3,811	3,567	3,490	3,525	3,553	2,977	3,259	3,028	3,106	3,060

TABLE XIIIa.—*Showing the mean diurnal inequality of Declination for each month of the year 1916 and for the whole year.*

Unity=1·00 minute of arc.

1916. Bombay Civil Time.	Month. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
9 51	+0·81	+0·82	+0·75	+1·37	+0·01	+0·32	+0·17	−0·34	−0·47	+0·16	−0·13	+0·01	+0·29
10 51	−0·41	+0·57	−0·22	−0·34	−1·46	−1·14	−1·31	−1·86	−2·08	−0·80	−0·52	−0·59	−0·85
11 51	−1·15	−0·09	−1·18	−1·85	−2·44	−2·19	−2·36	−2·67	−3·10	−1·49	−0·62	−0·73	−1·66
12 51	−1·15	−0·40	−1·71	−2·42	−2·54	−2·52	−2·60	−2·76	−2·92	−1·33	−0·06	−0·15	−1·71
13 51	−0·63	−0·47	−1·53	−2·17	−1·92	−2·15	−2·21	−2·10	−1·84	−0·76	+0·44	+0·44	−1·24
14 51	0	−0·47	−0·69	−1·43	−1·11	−1·48	−1·39	−1·13	−0·54	+0·08	+0·40	+0·74	−0·59
15 51	+0·63	−0·29	+0·12	−0·59	−0·21	−0·66	−0·59	−0·20	+0·57	+0·43	+0·36	+0·58	+0·01
16 51	+0·57	−0·08	+0·25	−0·07	+0·38	−0·13	+0·08	+0·40	+0·90	+0·25	+0·23	+0·33	+0·26
17 51	+0·16	−0·07	−0·16	+0·06	+0·38	−0·02	+0·37	+0·60	+0·47	−0·07	−0·01	+0·16	+0·16
18 51	+0·26	+0·08	−0·13	−0·21	−0·14	−0·28	−0·08	+0·03	+0·20	+0·06	+0·26	+0·36	+0·03
19 51	+0·35	+0·17	−0·06	−0·31	−0·32	−0·27	−0·26	−0·10	+0·05	+0·06	+0·23	+0·25	−0·02
20 51	+0·20	+0·16	+0·12	−0·26	−0·21	−0·17	−0·25	−0·11	+0·10	+0·09	+0·16	+0·16	0
21 51	+0·13	+0·22	+0·09	−0·10	+0·01	−0·07	−0·19	−0·07	+0·01	+0·05	+0·15	+0·17	+0·03
22 51	+0·09	+0·25	+0·13	+0·12	+0·05	+0·05	−0·04	+0·04	+0·09	+0·24	+0·25	+0·11	+0·11
23 51	+0·09	+0·33	+0·21	+0·27	+0·12	+0·15	+0·12	+0·08	+0·11	+0·21	+0·31	+0·12	+0·18
0 51	+0·04	+0·27	+0·23	+0·32	+0·17	+0·33	+0·22	+0·11	+0·10	+0·22	+0·38	+0·12	+0·21
1 51	−0·07	+0·23	+0·16	+0·37	+0·23	+0·42	+0·28	+0·23	+0·22	+0·21	+0·28	+0·09	+0·22
2 51	−0·14	+0·07	+0·04	+0·28	+0·28	+0·41	+0·37	+0·35	+0·15	+0·01	+0·10	−0·05	+0·16
3 51	−0·16	−0·15	+0·01	+0·16	+0·31	+0·44	+0·38	+0·43	+0·30	−0·12	−0·11	−0·20	+0·11
4 51	−0·36	−0·31	−0·02	+0·12	+0·53	+0·58	+0·53	+0·71	+0·44	−0·21	−0·41	−0·47	+0·09
5 51	−0·41	−0·47	+0·07	+0·56	+1·58	+1·40	+1·64	+1·60	+1·09	−0·09	−0·52	−0·63	+0·49
6 51	−0·31	−0·70	+0·63	+1·69	+2·37	+2·45	+2·65	+2·63	+2·32	+0·60	−0·74	−0·76	+1·07
7 51	+0·40	−0·26	+1·39	+2·33	+2·35	+2·67	+2·69	+2·70	+2·44	+1·20	−0·39	−0·32	+1·43
8 51	+1·16	+0·50	+1·47	+2·14	+1·53	+1·84	+1·72	+1·49	+1·25	+0·97	−0·10	+0·23	+1·18
Range..	2·31	1·52	3·18	4·75	4·91	5·19	5·29	5·46	5·54	2·69	1·18	1·50	3·14
*Summed Range.	9·68	7·43	11·37	19·54	20·65	22·14	22·50	22·74	21·76	9·71	7·16	7·77	12·10

TABLE XIIIb.—*Showing the mean diurnal inequality of Declination for each month of the year 1917 and for the whole year.*

Unity=1·00 minute of arc.

1917. Bombay Civil Time.	Month. January.	February.	March.	Ap	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
9 51	+0·38	+1·31	+1·13	+0·84	−0·28	+0·79	+0·40	+0·70	+0·10	+0·34	+0·22	+0·22	+0·51
10 51	−0·80	+0·49	−0·19	−0·44	−1·58	−0·62	−0·99	−1·16	−1·50	−0·56	−0·48	+0·38	−0·62
11 51	−1·40	−0·49	−1·34	−1·63	−2·25	−1·83	−1·81	−2·43	−2·80	−1·28	−0·69	+0·38	−1·46
12 51	−1·08	−1·07	−1·82	−2·08	−2·29	−2·31	−2·15	−2·76	−3·11	−1·17	−0·17	+0·49	−1·63
13 51	−0·35	−0·96	−1·35	−1·74	−1·63	−2·05	−1·93	−2·55	−2·18	−0·63	+0·16	+0·48	−1·23
14 51	+0·12	−0·65	−0·45	−1·00	−0·82	−1·55	−1·42	−1·87	−0·94	−0·17	+0·05	+0·30	−0·70
15 51	+0·45	−0·29	+0·15	−0·30	−0·13	−0·94	−0·67	−0·82	+0·15	+0·16	+0·03	+0·32	−0·16
16 51	+0·35	+0·04	+0·10	+0·03	+0·24	−0·45	−0·05	0	+0·36	−0·01	0	+0·19	+0·07
17 51	−0·03	−0·14	−0·23	−0·06	+0·29	−0·13	+0·29	+0·29	+0·04	−0·50	−0·19	+0·05	−0·03
18 51	+0·35	+0·05	−0·23	−0·41	−0·19	−0·35	−0·09	+0·12	−0·15	−0·17	+0·20	+0·23	−0·05
19 51	+0·35	+0·14	−0·10	−0·40	−0·35	−0·51	−0·54	−0·17	−0·22	−0·07	+0·25	+0·20	−0·12
20 51	+0·28	+0·16	−0·08	−0·24	−0·24	−0·34	−0·51	−0·29	−0·22	−0·15	+0·17	+0·12	−0·11
21 51	+0·25	+0·11	−0·11	−0·10	−0·04	−0·15	−0·43	−0·20	−0·20	−0·09	+0·12	+0·21	−0·05
22 51	+0·29	+0·14	+0·01	0	+0·03	0	−0·27	−0·17	−0·04	+0·14	+0·33	+0·27	+0·06
23 51	+0·24	+0·25	+0·15	+0·12	+0·13	+0·20	−0·19	−0·11	+0·17	+0·35	+0·40	+0·37	+0·17
0 51	+0·22	+0·22	+0·13	+0·25	+0·32	+0·28	+0·10	+0·06	+0·29	+0·32	+0·34	+0·36	+0·24
1 51	+0·24	+0·16	+0·13	+0·25	+0·41	+0·33	+0·28	+0·10	+0·28	+0·23	+0·35	+0·21	+0·25
2 51	+0·16	+0·09	+0·05	+0·19	+0·43	+0·34	+0·30	+0·13	+0·32	+0·16	+0·13	−0·01	+0·19
3 51	−0·06	−0·13	−0·10	+0·10	+0·39	+0·31	+0·35	+0·25	+0·34	−0·09	−0·12	−0·27	+0·08
4 51	−0·34	−0·26	−0·20	+0·16	+0·57	+0·50	+0·58	+0·38	+0·47	−0·20	−0·36	−0·54	+0·06
5 51	−0·47	−0·36	−0·03	+0·67	+1·45	+1·46	+1·58	+1·56	+1·26	−0·02	−0·44	−0·81	+0·49
6 51	−0·35	−0·35	+0·85	+1·79	+2·31	+2·45	+2·64	+3·30	+2·86	+0·77	−0·60	−1·39	+1·19
7 51	+0·32	+0·40	+1·61	+2·26	+2·10	+2·63	+2·63	+3·39	+3·03	+1·51	+0·03	−1·19	+1·56
8 51	+0·97	+1·13	+1·80	+1·83	+1·19	+1·89	+1·79	+2·26	+1·78	+1·23	+0·32	−0·44	+1·31
Range..	2·37	2·38	3·62	4·34	4·60	4·94	4·79	6·15	6·14	2·79	1·09	1·88	3·19
*summed Range.	9·85	9·39	12·34	16·89	19·66	22·41	21·99	25·07	22·81	10·32	6·18	9·43	12·34

* Summed range means sum without regard to sign of the twenty-four ordinates of the diurnal inequality.
For the magnitude of the aperiodic corrections applicable to the diurnal inequalities, *vide* Table XIX.

TABLE XIIIc.—*Showing the mean diurnal inequality of Declination for each month of the year 1918, and for the whole year.*

Unity=1·00 minute of arc.

1918. Bombay Civil time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
9 51	+0·61	+0·81	+0·77	+0·82	+0·01	+0·28	+0·73	+0·39	−0·21	+0·31	−0·27	−0·02	+0·35
10 51	+0·80	+0·49	−0·28	−0·81	−1·48	−1·23	−0·59	−1·14	−1·55	−0·79	−0·86	−0·83	−0·69
11 51	+0·50	−0·25	−1·20	−2·04	−2·49	−2·23	−1·48	−2·26	−2·62	−1·71	−1·04	−1·01	−1·49
12 51	+0·51	−0·16	−1·51	−2·23	−2·60	−2·47	−2·00	−2·57	−2·63	−1·49	−0·41	−0·42	−1·50
13 51	+0·74	+0·12	−1·04	−1·62	−1·77	−1·95	−1·91	−2·30	−1·81	−0·82	+0·38	+0·08	−0·99
14 51	+0·30	+0·35	−0·15	−0·90	−0·81	−1·24	−1·36	−1·55	−0·58	−0·17	+0·66	+0·61	−0·40
15 51	−0·24	+0·39	+0·36	−0·31	−0·04	−0·49	−0·75	−0·76	+0·16	+0·14	+0·66	+0·75	−0·01
16 51	−0·15	+0·15	+0·24	−0·07	+0·26	−0·04	−0·23	−0·10	+0·25	−0·02	+0·21	+0·48	+0·08
17 51	−0·19	−0·32	−0·13	−0·27	+0·21	+0·27	+0·01	+0·20	+0·04	−0·27	+0·03	+0·15	−0·02
18 51	+0·01	−0·19	−0·23	−0·61	−0·26	−0·05	−0·30	−0·17	−0·17	−0·08	+0·21	+0·63	−0·10
19 51	+0·21	−0·11	−0·11	−0·51	−0·36	−0·45	−0·72	−0·46	−0·23	+0·19	+0·17	+0·28	−0·17
20 51	+0·14	−0·14	−0·12	−0·35	−0·32	−0·40	−0·61	−0·52	+0·02	+0·17	+0·08	+0·16	−0·16
21 51	+0·16	−0·07	−0·07	−0·13	−0·21	−0·24	−0·45	−0·36	−0·06	+0·17	+0·14	+0·27	−0·07
22 51	+0·26	+0·03	+0·01	+0·10	0	−0·07	−0·28	−0·17	+0·05	+0·28	+0·31	+0·23	+0·06
23 51	+0·32	+0·14	+0·10	+0·24	+0·10	+0·11	−0·07	+0·04	+0·11	+0·37	+0·35	+0·01	+0·15
0 51	+0·30	+0·22	+0·08	+0·37	+0·24	+0·33	+0·10	+0·23	+0·21	+0·37	+0·36	+0·01	+0·23
1 51	+0·22	+0·16	+0·07	+0·41	+0·36	+0·37	+0·27	+0·38	+0·27	+0·33	+0·33	−0·15	+0·25
2 51	+0·05	+0·05	−0·04	+0·33	+0·35	+0·40	+0·33	+0·42	+0·28	+0·25	+0·21	−0·04	+0·22
3 51	−0·24	−0·15	−0·14	+0·24	+0·28	+0·45	+0·32	+0·47	+0·33	+0·10	−0·04	−0·28	+0·11
4 51	−0·61	−0·31	−0·27	+0·22	+0·53	+0·63	+0·52	+0·62	+0·42	−0·05	−0·19	−0·40	+0·09
5 51	−0·87	−0·53	−0·03	+0·65	+1·32	+1·61	+1·35	+1·53	+1·00	−0·02	−0·31	−0·47	+0·44
6 51	−1·34	−0·75	+0·71	+1·88	+2·35	+2·46	+2·49	+2·88	+2·42	+0·69	−0·62	−0·49	+1·06
7 51	−1·20	−0·30	+1·44	+2·54	+2·62	+2·35	+2·66	+3·10	+2·72	+1·16	−0·28	+0·03	+1·40
8 51	−0·33	+0·47	+1·46	+2·09	+1·75	+1·57	+1·98	+2·00	+1·60	+1·00	−0·15	+0·42	+1·15
Range ..	2·14	1·56	2·97	4·77	5·22	4·93	4·66	5·67	5·35	2·87	1·70	1·76	2·90
Summed Range ..	10·30	6·66	10·56	19·74	20·72	21·69	21·51	24·62	19·74	10·95	8·27	8·82	11·19

TABLE XIIId.—*Showing the mean diurnal inequality of Declination for each month of the year 1919, and for the whole year.*

Unity=1·00 minute of arc.

1919. Bombay Civil time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m													
9 51	+0·45	−0·05	+1·03	+0·86	+0·25	+0·42	+0·82	+0·02	+0·12	+0·29	0	+0·43	+0·39
10 51	−0·62	−0·73	+0·23	−0·56	−1·30	−1·07	−0·45	−1·39	−1·36	−0·69	−0·36	+0·38	−0·66
11 51	−1·10	−1·20	−0·83	−1·79	−2·24	−2·10	−1·51	−2·30	−2·55	−1·38	−0·54	+0·16	−1·45
12 51	−0·82	−0·70	−1·43	−2·35	−2·33	−2·44	−2·12	−2·55	−2·77	−1·22	−0·02	+0·21	−1·55
13 51	−0·32	+0·05	−1·10	−1·90	−1·76	−2·16	−2·16	−2·18	−2·20	−0·74	+0·32	+0·26	1·16
14 51	+0·13	+0·71	−0·35	−1·11	−1·01	−1·47	−1·61	−1·33	−1·12	−0·19	+0·32	+0·30	−0·56
15 51	+0·45	+0·95	+0·22	−0·27	−0·37	−0·69	−0·87	−0·34	−0·11	+0·19	+0·29	+0·35	−0·02
16 51	+0·28	+0·58	+0·20	−0·09	−0·05	−0·23	−0·25	+0·27	+0·21	+0·02	+0·27	+0·37	+0·13
17 51	+0·05	−0·14	−0·25	−0·13	+0·06	+0·02	−0·02	+0·19	−0·01	−0·32	+0·02	+0·16	0·03
18 51	+0·38	−0·05	−0·34	−0·35	−0·17	−0·36	−0·44	−0·33	−0·24	−0·14	+0·19	+0·24	−0·13
19 51	+0·35	−0·08	−0·07	−0·31	−0·29	−0·63	−0·71	−0·39	−0·23	−0·17	+0·26	+0·39	−0·16
20 51	+0·32	−0·11	−0·03	−0·21	−0·26	−0·57	−0·63	−0·32	−0·13	−0·15	+0·10	+0·30	−0·14
21 51	+0·38	−0·12	+0·04	+0·02	−0·16	−0·35	−0·46	−0·32	+0·05	+0·02	+0·20	+0·22	0·04
22 51	+0·28	−0·01	+0·17	+0·14	−0·07	−0·11	−0·24	−0·12	+0·21	+0·29	+0·28	+0·15	+0·08
23 51	+0·30	+0·10	+0·14	+0·31	+0·12	+0·04	−0·03	+0·09	+0·37	+0·36	+0·27	+0·15	+0·19
0 51	+0·24	+0·17	+0·33	+0·40	+0·36	+0·20	+0·21	+0·27	+0·48	+0·38	+0·22	+0·15	+0·28
1 51	+0·23	+0·22	+0·30	+0·49	+0·38	+0·38	+0·29	+0·40	+0·59	+0·32	+0·17	−0·02	+0·31
2 51	−0·06	+0·12	+0·17	+0·48	+0·48	+0·46	+0·43	+0·56	+0·57	+0·31	−0·06	−0·23	+0·27
3 51	−0·32	+0·04	0	+0·40	+0·41	+0·62	+0·50	+0·57	+0·51	+0·13	−0·24	−0·50	+0·18
4 51	−0·45	−0·19	−0·23	+0·33	+0·43	+0·83	+0·71	+0·82	+0·43	−0·01	−0·44	−0·75	+0·12
5 51	−0·48	−0·31	−0·39	+0·58	+1·23	+1·71	+1·42	+1·56	+0·90	0	−0·52	−0·94	+0·40
6 51	−0·43	−0·20	+0·11	+1·42	+2·15	+2·81	+2·41	+2·64	+2·13	+0·59	−0·66	−1·15	+0·99
7 51	+0·19	+0·27	+0·83	+1·92	+2·34	+2·89	+2·54	+2·61	+2·49	+1·09	−0·22	−0·82	+1·34
8 51	+0·69	+0·57	+1·23	+1·78	+1·71	+1·93	+1·97	+1·64	+1·58	+0·94	+0·03	+0·08	+1·18
Range ..	1·79	2·15	2·66	4·27	4·67	5·33	4·70	5·19	5·26	2·47	0·98	1·58	2·89
Summed Range ..	9·32	7·67	10·02	18·20	19·93	24·52	22·87	23·21	21·36	9·94	6·00	8·71	11·76

TABLE XIIIe.—*Showing the mean diurnal inequality of Declination for each month of the year 1920, and for the whole year.*

Unity—1·00 minute of arc.

1920. Bombay Civil Time.	Month. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
9 51	+1·34	+1·52	+0·66	+0·28	−0·26	+0·48	−0·07	−0·60	−0·30	−0·01	−0·36	+0·16	+0·24
10 51	+0·67	+1·48	−0·29	−1·05	−1·59	−1·09	−1·46	−1·99	−1·81	−1·01	−0·98	−0·87	−0·83
11 51	−0·32	+0·78	−1·05	−2·15	−2·32	−2·52	−2·23	−2·81	−2·78	−1·60	−0·90	−0·98	−1·57
12 51	−0·64	+0·16	−1·54	−2·30	−2·24	−2·84	−2·36	−2·74	−2·73	−1·33	−0·31	−0·22	−1·59
13 51	−0·66	−0·32	−1·21	−1·64	−1·48	−2·33	−1·96	−2·12	−1·84	−0·54	+0·24	+0·36	−1·13
14 51	−0·45	−0·70	−0·45	−0·81	−0·65	−1·59	−1·32	−1·26	−0·56	+0·14	+0·56	+0·80	−0·52
15 51	−0·07	−0·68	+0·19	−0·03	+0·14	−0·80	−0·50	−0·32	+0·41	+0·52	+0·59	+0·82	+0·02
16 51	+0·21	−0·34	+0·14	+0·21	+0·39	−0·14	+0·05	+0·29	+0·70	+0·32	+0·27	+0·46	+0·21
17 51	+0·12	−0·28	0	+0·07	+0·13	+0·04	+0·14	+0·29	+0·10	+0·01	+0·03	+0·31	+0·08
18 51	+0·27	−0·13	+0·06	−0·10	−0·38	−0·36	−0·31	−0·21	−0·08	+0·05	+0·27	+0·43	−0·04
19 51	+0·32	+0·01	−0·01	−0·22	−0·57	−0·42	−0·50	−0·27	−0·13	+0·04	+0·23	+0·41	−0·09
20 51	+0·35	+0·03	−0·01	−0·11	−0·45	−0·30	−0·43	−0·23	−0·05	+0·10	+0·17	+0·31	−0·05
21 51	+0·27	+0·08	+0·10	+0·01	−0·28	−0·12	−0·22	−0·08	−0·01	+0·13	+0·21	+0·19	+0·02
22 51	+0·29	+0·20	+0·21	+0·20	−0·06	+0·02	0	+0·09	+0·03	+0·23	+0·29	+0·09	+0·13
23 51	+0·25	+0·34	+0·30	+0·31	+0·11	+0·21	+0·20	+0·17	+0·09	+0·28	+0·22	+0·06	+0·21
0 51	+0·20	+0·23	+0·31	+0·43	+0·22	+0·39	+0·36	+0·36	+0·19	+0·29	+0·12	−0·05	+0·25
1 51	+0·09	+0·09	+0·29	+0·46	+0·28	+0·45	+0·49	+0·45	+0·37	+0·25	−0·02	−0·23	+0·25
2 51	−0·03	−0·09	+0·22	+0·42	+0·32	+0·47	+0·56	+0·60	+0·36	+0·11	−0·13	−0·43	+0·20
3 51	−0·28	−0·31	0	+0·38	+0·39	+0·54	+0·70	+0·64	+0·43	+0·01	−0·26	−0·65	+0·13
4 51	−0·59	−0·63	−0·01	+0·30	+0·60	+0·75	+0·86	+0·85	+0·59	−0·09	−0·33	−0·60	+0·14
5 51	−0·75	−0·81	−0·01	+0·57	+1·47	+1·74	+1·73	+1·84	+1·11	−0·05	−0·29	−0·63	+0·49
6 51	−0·86	−1·01	+0·28	+1·49	+2·32	+2·72	+2·49	+2·83	+2·22	+0·46	−0·11	−0·59	+1·02
7 51	−0·35	−0·35	+0·80	+1·87	+2·44	+2·78	+2·37	+2·76	+2·30	+0·95	+0·26	+0·14	+1·33
8 51	+0·72	+0·73	+1·03	+1·36	+1·48	+1·88	+1·43	+1·45	+1·28	+0·82	+0·24	+0·70	+1·09
Range..	2·20	2·53	2·57	4·17	4·76	5·62	4·85	5·64	5·08	2·55	1·57	1·80	2·92
Summed Range.	10·10	11·30	9·17	16·77	20·57	24·98	22·74	25·25	20·47	9·34	7·39	10·49	11·63

TABLE XIIIf.—*Showing for the summer months (April to September), the winter months (January to March and October to December) and the whole year, the mean diurnal inequality of Declination duirng the period 1916 to 1920.*

Unity—1·00 minute of arc.

Years. Bombay Civil Time.	1916. April to September.	1916. January to March and October to December.	1916. Year.	1917. April to September.	1917. January to March and October to December.	1917. Year.	1918. April to September.	1918. January to March and October to December.	1918. Year.	1919. April to September.	1919. January to March and October to December.	1919. Year.	1920. April to September.	1920. January to March and October to December.	1920. Year.
H. m.															
9 51	+0·18	+0·40	+0·29	+0·43	+0·60	+0·51	+0·34	+0·37	+0·35	+0·41	+0·36	+0·39	−0·08	+0·55	+0·24
10 51	−1·37	−0·33	−0·85	−1·05	−0·19	−0·62	−1·13	−0·25	−0·69	−1·02	−0·30	−0·66	−1·50	−0·17	−0·83
11 51	−2·43	−0·88	−1·66	−2·13	−0·80	−1·46	−2·19	−0·79	−1·49	−2·08	−0·81	−1·45	−2·47	−0·68	−1·57
12 51	−2·63	−0·80	−1·71	−2·45	−0·80	−1·63	−2·42	−0·58	−1·50	−2·43	−0·66	−1·55	−2·53	−0·65	−1·59
13 51	−2·07	−0·42	−1·24	−2·01	−0·44	−1·23	−1·89	−0·09	−0·99	−2·06	−0·25	−1·16	−1·89	−0·35	−1·13
14 51	−1·18	+0·01	−0·59	−1·27	−0·13	−0·70	−1·07	+0·27	−0·40	−1·27	+0·15	−0·56	−1·03	−0·02	−0·52
15 51	−0·28	+0·30	+0·01	−0·45	+0·14	−0·16	−0·37	+0·34	−0·01	−0·44	+0·41	−0·02	−0·18	+0·23	+0·02
16 51	+0·26	+0·26	+0·26	+0·02	+0·11	+0·07	+0·01	+0·15	+0·08	−0·02	+0·29	+0·13	+0·25	+0·18	+0·21
17 51	+0·31	0·00	+0·16	+0·12	−0·17	−0·02	+0·08	−0·12	−0·02	+0·02	−0·08	−0·03	+0·13	+0·03	+0·08
18 51	−0·08	+0·15	+0·03	−0·18	+0·07	−0·05	−0·26	+0·06	−0·10	−0·31	+0·05	−0·13	−0·24	+0·16	−0·04
19 51	−0·20	+0·17	−0·02	−0·37	+0·13	−0·12	−0·45	+0·11	−0·17	−0·43	+0·11	−0·16	−0·35	+0·17	−0·09
20 51	−0·15	+0·15	0·00	−0·31	+0·08	−0·11	−0·36	+0·05	−0·16	−0·35	+0·07	−0·14	−0·26	+0·16	−0·05
21 51	−0·07	+0·13	+0·03	−0·19	+0·08	−0·05	−0·24	+0·10	−0·07	−0·21	+0·12	−0·04	−0·12	+0·16	+0·02
22 51	+0·05	+0·18	+0·11	−0·07	+0·20	+0·06	−0·06	+0·19	+0·06	−0·03	+0·19	+0·08	+0·05	+0·22	+0·13
23 51	+0·14	+0·21	+0·18	+0·05	+0·29	+0·17	+0·09	+0·21	+0·15	+0·15	+0·22	+0·19	+0·18	+0·24	+0·21
0 51	+0·21	+0·21	+0·21	+0·22	+0·27	+0·24	+0·25	+0·22	+0·23	+0·32	+0·25	+0·28	+0·33	+0·18	+0·25
1 51	+0·29	+0·15	+0·22	+0·27	+0·22	+0·25	+0·34	+0·16	+0·25	+0·42	+0·20	+0·31	+0·42	+0·08	+0·25
2 51	+0·31	+0·01	+0·16	+0·29	+0·10	+0·19	+0·35	+0·08	+0·22	+0·50	+0·04	+0·27	+0·45	−0·06	+0·20
3 51	+0·34	−0·12	+0·11	+0·29	−0·13	+0·08	+0·35	−0·13	+0·11	+0·50	−0·15	+0·18	+0·51	−0·25	+0·13
4 51	+0·49	−0·30	+0·09	+0·44	−0·32	+0·06	+0·49	−0·31	+0·09	+0·59	−0·35	+0·12	+0·66	−0·37	+0·14
5 51	+1·31	−0·34	+0·49	+1·33	−0·35	+0·49	+1·24	−0·37	+0·44	+1·25	−0·44	+0·40	+1·41	−0·42	+0·49
6 51	+2·35	−0·31	+1·07	+2·56	−0·18	+1·19	+2·41	−0·30	+1·06	+2·25	−0·29	+0·99	+2·35	−0·30	+1·02
7 51	+2·53	+0·34	+1·43	+2·67	+0·45	+1·56	+2·67	+0·14	+1·40	+2·47	+0·22	+1·34	+2·42	+0·24	+1·38
8 51	+1·66	+0·70	+1·18	+1·79	+0·88	+1·31	+1·83	+0·48	+1·15	+1·77	+0·59	+1·18	+1·48	+0·71	+1·09
Range..	5·16	1·58	3·14	5·12	1·63	3·19	5·09	1·27	2·90	4·90	1·40	2·89	4·95	1·39	2·92
Summed Range.	20·89	6·87	12·10	20·96	7·08	12·34	20·89	5·87	11·19	21·31	6·60	11·76	21·29	6·58	11·63

TABLE XIV*a*.—*Showing the mean diurnal inequality of Vertical Force for each month of the year 1916, and for the whole year.*

Unity = 0·1γ.

1916. Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
9 51	—118	+ 9	—106	—161	—196	—194	—206	—202	—245	—136	— 47	— 59	—138
10 51	—185	— 42	—156	—242	—202	—229	—250	—219	—253	—174	— 64	— 86	—175
11 51	—160	— 64	—164	—231	—168	—207	—225	—176	—206	—147	— 25	— 42	—151
12 51	— 75	— 41	— 98	—151	— 99	—130	—125	—108	— 84	— 60	+ 22	+ 10	— 78
13 51	— 9	— 43	— 15	— 51	— 20	— 30	— 46	— 28	+ 10	+ 7	+ 15	+ 21	— 16
14 51	+ 52	— 39	+ 44	— 21	+ 29	+ 29	+ 26	+ 30	+ 69	+ 39	— 2	+ 12	+ 26
15 51	+ 68	— 13	+ 46	+ 47	+ 55	+ 62	+ 69	+ 69	+ 78	+ 20	— 16	— 8	+ 40
16 51	+ 24	— 6	+ 2	+ 33	+ 71	+ 54	+ 72	+ 59	+ 33	— 27	— 30	— 20	+ 24
17 51	+ 7	— 7	— 32	+ 3	+ 11	+ 30	+ 45	+ 20	— 15	— 26	— 15	0	+ 2
18 51	+ 31	+ 7	— 3	— 4	— 23	— 2	— 3	— 8	— 3	0	+ 8	+ 17	+ 1
19 51	+ 25	+ 9	+ 9	+ 13	+ 1	+ 20	+ 16	+ 6	+ 14	+ 3	0	+ 8	+ 10
20 51	+ 22	+ 7	+ 17	+ 32	+ 21	+ 32	+ 27	+ 16	+ 29	+ 11	— 2	+ 8	+ 18
21 51	+ 28	+ 14	+ 27	+ 50	+ 40	+ 43	+ 39	+ 32	+ 38	+ 30	+ 23	+ 20	+ 32
22 51	+ 31	+ 22	+ 41	+ 64	+ 47	+ 49	+ 54	+ 39	+ 49	+ 47	+ 31	+ 23	+ 41
23 51	+ 25	+ 26	+ 43	+ 65	+ 49	+ 52	+ 54	+ 43	+ 53	+ 45	+ 27	+ 20	+ 42
0 51	+ 21	+ 19	+ 40	+ 66	+ 48	+ 51	+ 53	+ 45	+ 53	+ 47	+ 22	+ 11	+ 40
1 51	+ 14	+ 12	+ 35	+ 58	+ 52	+ 50	+ 49	+ 50	+ 60	+ 43	+ 14	+ 10	+ 37
2 51	+ 12	+ 6	+ 33	+ 47	+ 47	+ 46	+ 47	+ 52	+ 57	+ 33	+ 8	— 1	+ 32
3 51	+ 16	0	+ 31	+ 46	+ 53	+ 48	+ 49	+ 53	+ 62	+ 33	0	+ 1	+ 33
4 51	+ 15	+ 3	+ 32	+ 57	+ 69	+ 63	+ 69	+ 71	+ 71	+ 41	— 3	— 4	+ 40
5 51	+ 23	+ 6	+ 55	+106	+135	+121	+145	+130	+128	+ 65	+ 5	+ 1	+ 77
6 51	+ 40	+ 7	+ 78	+128	+ 99	+109	+121	+121	+135	+102	+ 5	+ 4	+ 79
7 51	+ 72	+ 52	+ 62	+ 52	+ 9	+ 34	+ 27	+ 23	+ 8	+ 49	+ 24	+ 40	+ 38
8 51	+ 23	+ 61	— 16	— 43	—110	— 93	—113	—113	—145	— 46	+ 1	+ 12	— 49
Range ..	257	125	242	370	337	350	395	349	388	276	95	126	254
*Summed Range ..	1,096	515	1,185	1,771	1,654	1,778	1,930	1,713	1,898	1,231	409	438	1,219

TABLE XIV*b*.—*Showing the mean diurnal inequality of Vertical Force for each month of the year 1917, and for the whole year.*

Unity = 0·1γ.

1917. Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
9 51	—130	— 12	—117	—165	—203	—103	—154	—210	—281	—164	— 38	+ 55	—127
10 51	—173	—109	—187	—200	—213	—175	—183	—252	—328	—189	— 79	+ 25	—172
11 51	—128	—139	—184	—188	—172	—178	—159	—241	—293	—152	— 22	+ 7	—154
12 51	— 35	—106	—110	—102	—107	—136	—107	—157	—162	— 76	+ 8	+ 13	— 90
13 51	+ 11	— 50	— 11	— 8	— 29	— 71	— 54	— 79	— 19	— 19	— 13	— 5	— 29
14 51	+ 31	— 26	+ 35	+ 35	+ 13	— 21	+ 7	— 3	+ 58	— 3	— 33	— 31	+ 5
15 51	+ 35	— 7	+ 16	+ 39	+ 39	+ 15	+ 34	+ 45	+ 62	— 18	— 34	— 34	+ 16
16 51	+ 6	— 7	— 24	+ 6	+ 30	+ 23	+ 35	+ 44	+ 5	— 50	— 34	— 45	— 1
17 51	— 2	— 18	— 35	— 13	+ 4	+ 19	+ 16	+ 8	— 21	— 36	— 18	— 33	— 11
18 51	+ 37	+ 11	+ 8	— 14	— 23	— 30	— 37	— 13	+ 12	+ 17	+ 18	— 4	— 1
19 51	+ 27	+ 11	+ 16	+ 9	+ 4	— 9	— 13	— 2	+ 22	+ 16	+ 3	— 9	+ 6
20 51	+ 22	+ 8	+ 16	+ 27	+ 31	+ 10	+ 7	+ 21	+ 36	+ 14	— 5	— 12	+ 15
21 51	+ 34	+ 15	+ 30	+ 46	+ 45	+ 29	+ 23	+ 37	+ 54	+ 43	+ 7	— 3	+ 30
22 51	+ 35	+ 29	+ 46	+ 52	+ 57	+ 41	+ 33	+ 49	+ 76	+ 65	+ 27	+ 8	+ 43
23 51	+ 33	+ 32	+ 52	+ 56	+ 64	+ 47	+ 47	+ 62	+ 86	+ 70	+ 27	+ 14	+ 49
0 51	+ 25	+ 27	+ 46	+ 59	+ 69	+ 43	+ 53	+ 64	+ 90	+ 64	+ 20	+ 7	+ 47
1 51	+ 22	+ 26	+ 45	+ 48	+ 68	+ 41	+ 52	+ 65	+ 85	+ 62	+ 17	+ 1	+ 44
2 51	+ 14	+ 22	+ 39	+ 41	+ 64	+ 40	+ 42	+ 65	+ 88	+ 49	+ 9	— 5	+ 39
3 51	+ 6	+ 14	+ 37	+ 49	+ 66	+ 41	+ 50	+ 76	+ 91	+ 44	+ 2	— 8	+ 39
4 51	+ 5	+ 20	+ 44	+ 61	+ 86	+ 60	+ 69	+ 88	+104	+ 62	+ 8	— 7	+ 50
5 51	+ 15	+ 26	+ 77	+114	+145	+137	+144	+178	+183	+ 87	+ 17	— 9	+ 93
6 51	+ 34	+ 50	+106	+113	+ 89	+131	+125	+179	+186	+123	+ 30	— 24	+ 95
7 51	+ 63	+ 96	+ 65	+ 23	— 15	+ 63	+ 38	+ 62	+ 31	+ 55	+ 57	+ 31	+ 47
8 51	+ 7	+ 73	— 18	— 82	—108	— 30	— 66	— 87	—153	— 63	+ 16	+ 66	— 37
Range ..	236	235	293	314	358	315	327	431	514	312	136	111	267
*Summed Range ..	930	934	1,364	1,550	1,744	1,493	1,548	2,087	2,526	1,541	542	456	1,240

* Summed range means sum without regard to sign of the twenty-four ordinates of the diurnal inequality.

For the magnitude of the temperature and aperiodic corrections applicable to the diurnal inequalities, *vide* Tables XVII and XX.

TABLE XIVc.—*Showing the mean diurnal inequality of Vertical Force for each month of the year 1918, and for the whole year.*

Unity=0·1γ

1918. Bombay Civil time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
9 51	+102	— 9	—103	—219	—215	—154	—153	—181	—257	—159	— 40	— 74	—122
10 51	+ 50	— 74	—151	—261	—231	—218	—181	—215	—271	—204	— 65	— 89	—159
11 51	+ 4	— 78	—153	—218	—194	—189	—157	—194	—242	—166	— 13	— 47	—137
12 51	+ 12	— 15	— 80	—102	— 98	—117	—113	—134	—133	— 68	+ 56	+ 22	— 64
13 51	— 13	+ 14	+ 8	— 19	— 3	— 37	— 51	— 77	— 18	— 1	+ 76	+ 55	— 5
14 51	— 61	+ 16	+ 41	+ 15	+ 40	+ 23	— 3	— 20	+ 42	+ 33	+ 43	+ 65	+ 19
15 51	— 65	— 3	+ 13	+ 26	+ 57	+ 28	+ 27	+ 26	+ 32	+ 16	+ 2	+ 34	+ 16
16 51	— 42	— 37	— 27	+ 6	+ 27	+ 21	+ 28	+ 40	— 8	— 28	— 37	— 19	— 6
17 51	— 37	— 49	— 40	— 16	— 12	+ 20	+ 18	+ 22	— 24	— 21	— 19	— 9	— 14
18 51	— 5	— 6	— 11	— 11	— 34	— 18	— 28	— 14	— 5	+ 22	— 2	+ 21	— 8
19 51	— 3	— 4	+ 6	+ 23	— 4	— 7	— 21	— 4	+ 20	+ 22	— 9	+ 2	+ 2
20 51	— 8	— 6	+ 9	+ 38	+ 15	+ 19	+ 6	+ 15	+ 37	+ 24	— 11	— 6	+ 11
21 51	— 1	+ 6	+ 27	+ 57	+ 33	+ 37	+ 24	+ 40	+ 44	+ 41	+ 6	+ 9	+ 27
22 51	+ 10	+ 21	+ 42	+ 67	+ 46	+ 46	+ 37	+ 53	+ 71	+ 56	+ 17	— 2	+ 39
23 51	+ 11	+ 23	+ 50	+ 74	+ 52	+ 53	+ 45	+ 64	+ 78	+ 60	+ 9	— 8	+ 43
0 51	+ 11	+ 22	+ 42	+ 73	+ 53	+ 55	+ 47	+ 66	+ 87	+ 53	+ 4	— 5	+ 42
1 51	+ 3	+ 20	+ 41	+ 70	+ 51	+ 47	+ 48	+ 69	+ 88	+ 50	+ 3	— 11	+ 40
2 51	— 3	+ 8	+ 30	+ 60	+ 49	+ 48	+ 47	+ 65	+ 82	+ 44	— 4	— 7	+ 35
3 51	— 13	+ 6	+ 26	+ 58	+ 53	+ 53	+ 43	+ 63	+ 76	+ 39	— 11	— 9	+ 32
4 51	— 20	+ 6	+ 34	+ 68	+ 74	+ 73	+ 62	+ 77	+ 88	+ 46	— 9	— 3	+ 41
5 51	— 24	+ 7	+ 65	+117	+138	+134	+128	+150	+155	+ 70	— 4	+ 8	+ 79
6 51	— 38	+ 14	+ 92	+139	+132	+112	+135	+151	+166	+ 99	0	+ 15	+ 85
7 51	+ 26	+ 63	+ 55	+ 38	+ 53	+ 36	+ 62	+ 42	+ 31	+ 41	+ 20	+ 42	+ 42
8 51	+ 90	+ 50	— 23	— 89	— 87	— 66	— 59	—100	—130	— 59	— 8	+ 10	— 39
Range ..	167	141	245	400	369	352	316	366	437	303	141	154	244
Summed Range ..	652	557	1,169	1,864	1,751	1,611	1,523	1,882	2,185	1,422	468	572	1,107

TABLE XIVd.—*Showing the mean diurnal inequality of Vertical Force for each month of the year 1919, and for the whole year.*

Unity—0·1γ

1919. Bombay Civil time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
9 51	— 76	—130	— 62	—159	—227	—145	—127	—178	—222	—124	— 33	+ 10	—123
10 51	—143	—153	—119	—202	—237	—187	—153	—200	—271	—162	— 76	— 22	—160
11 51	—112	— 93	—139	—194	—197	—176	—144	—177	—246	—137	— 60	— 45	—143
12 51	— 48	+ 16	— 96	—126	—109	—122	—104	—109	—146	— 57	— 8	— 38	— 79
13 51	— 9	+ 69	— 11	— 29	— 21	— 59	— 58	— 36	— 42	— 9	— 12	— 26	— 20
14 51	+ 18	+ 83	+ 31	+ 39	+ 25	+ 4	— 6	+ 20	+ 29	+ 15	— 26	— 10	+ 19
15 51	+ 32	+ 45	+ 14	+ 57	+ 40	+ 49	+ 32	+ 53	+ 44	+ 3	— 23	0	+ 29
16 51	— 6	— 27	— 32	+ 16	+ 30	+ 50	+ 37	+ 45	+ 11	— 40	— 19	+ 3	+ 6
17 51	— 6	— 51	— 44	— 2	+ 11	+ 29	+ 10	— 2	— 3	— 28	— 16	— 2	— 9
18 51	+ 25	— 1	— 9	— 3	— 9	— 24	— 35	— 25	+ 6	0	+ 2	+ 10	— 5
19 51	+ 16	0	+ 11	+ 13	+ 9	— 9	— 20	— 4	+ 21	+ 14	+ 7	+ 10	+ 6
20 51	+ 15	+ 6	+ 17	+ 26	+ 27	+ 13	+ 5	+ 11	+ 36	+ 26	+ 6	+ 9	+ 16
21 51	+ 25	+ 18	+ 33	+ 44	+ 45	+ 30	+ 22	+ 30	+ 55	+ 40	+ 23	+ 13	+ 31
22 51	+ 21	+ 30	+ 41	+ 53	+ 52	+ 44	+ 37	+ 53	+ 67	+ 49	+ 27	+ 11	+ 40
23 51	+ 26	+ 32	+ 40	+ 60	+ 64	+ 46	+ 45	+ 65	+ 74	+ 45	+ 24	+ 10	+ 44
0 51	+ 19	+ 34	+ 44	+ 60	+ 68	+ 45	+ 51	+ 66	+ 75	+ 51	+ 21	+ 8	+ 45
1 51	+ 15	+ 28	+ 41	+ 59	+ 62	+ 45	+ 48	+ 64	+ 77	+ 40	+ 20	— 2	+ 41
2 51	+ 7	+ 21	+ 31	+ 45	+ 64	+ 43	+ 47	+ 38	+ 71	+ 41	+ 8	— 10	+ 34
3 51	+ 6	+ 20	+ 23	+ 45	+ 54	+ 46	+ 44	+ 58	+ 69	+ 35	+ 8	— 14	+ 33
4 51	+ 17	+ 15	+ 20	+ 50	+ 65	+ 61	+ 59	+ 74	+ 75	+ 35	+ 12	— 11	+ 39
5 5	+ 30	+ 24	+ 26	+ 81	+130	+127	+113	+122	+131	+ 62	+ 16	— 5	+ 71
6 51	+ 46	+ 28	+ 66	+103	+116	+128	+109	+121	+155	+ 90	+ 27	— 5	+ 82
7 51	+ 72	+ 20	+ 57	+ 31	+ 31	+ 39	+ 40	+ 19	+ 49	+ 42	+ 46	+ 44	+ 41
8 51	+ 19	— 37	+ 12	— 59	— 84	— 81	— 60	—106	—114	— 31	+ 20	+ 69	— 38
Range ..	215	236	205	305	367	315	266	322	426	252	122	114	242
Summed Range ..	809	981	1,019	1,556	1,777	1,602	1,406	1,676	2,089	1,176	540	387	1,154

TABLE XIV*e*.—*Showing the mean diurnal inequality of Vertical Force for each month of the year 1920, and for the whole year.*

Unity = 0·1 γ

1920. Bombay Civil time.	Month. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
9 51	+ 22	+ 74	—106	—193	—216	—176	—177	—221	—247	—143	— 99	— 70	—129
10 51	— 92	— 4	—165	—213	—212	—234	—188	—211	—265	—178	—100	—105	—164
11 51	—123	— 62	—158	—186	—168	—224	—149	—162	—206	—126	— 32	— 37	—136
12 51	— 93	— 85	— 92	— 90	— 86	—132	— 80	— 84	— 82	— 52	+ 32	+26	— 68
13 51	— 67	—111	— 5	— 2	— 16	— 46	— 24	— 21	+ 29	+ 19	+ 47	+ 46	— 13
14 51	— 36	— 96	+ 44	+ 40	+ 34	+ 24	+ 33	+ 31	+ 88	+ 41	+ 40	+ 50	+ 24
15 51	+ 14	— 50	+ 40	+ 51	+ 58	+ 64	+ 63	+ 66	+ 82	+ 20	+ 19	+ 23	+ 37
16 51	+ 26	— 11	— 9	+ 19	+ 37	+ 64	+ 56	+ 60	+ 32	— 27	— 12	— 12	+ 19
17 51	+ 7	— 6	— 16	— 4	+ 2	+ 39	+ 23	+ 20	— 18	— 22	— 1	+ 1	+ 2
18 51	+ 28	+ 15	— 1	— 4	— 13	+ 7	— 12	— 4	0	— 4	+ 16	+ 9	+ 3
19 51	+ 31	+ 18	+ 6	+ 5	+ 5	+ 22	— 3	+ 12	+ 10	+ 8	+ 10	+ 2	+ 11
20 51	+ 26	+ 16	+ 15	+ 30	+ 28	+ 38	+ 15	+ 25	+ 27	+ 18	+ 8	— 2	+ 20
21 51	+ 25	+ 22	+ 24	+ 45	+ 44	+ 51	+ 32	+ 37	+ 37	+ 30	+ 11	— 2	+ 30
22 51	+ 31	+ 34	+ 37	+ 54	+ 57	+ 55	+ 44	+ 48	+ 45	+ 36	+ 11	— 7	+ 37
23 51	+ 23	+ 33	+ 44	+ 61	+ 59	+ 56	+ 41	+ 47	+ 53	+ 37	+ 4	— 8	+ 37
0 51	+ 21	+ 26	+ 42	+ 58	+ 56	+ 57	+ 43	+ 51	+ 50	+ 40	— 5	— 12	+ 36
1 51	+ 11	+ 18	+ 40	+ 54	+ 53	+ 50	+ 39	+ 48	+ 61	+ 36	— 7	— 15	+ 32
2 51	+ 3	+ 6	+ 33	+ 45	+ 52	+ 45	+ 34	+ 52	+ 54	+ 32	— 7	— 19	+ 27
3 51	— 7	0	+ 28	+ 44	+ 53	+ 45	+ 38	+ 49	+ 59	+ 33	— 6	— 16	+ 27
4 51	— 8	— 7	+ 38	+ 47	+ 75	+ 70	+ 54	+ 63	+ 71	+ 38	+ 6	+ 3	+ 37
5 51	+ 2	— 2	+ 47	+ 88	+ 94	+126	+105	+129	+112	+ 62	+ 26	+ 17	+ 67
6 51	+ 10	+ 4	+ 75	+106	+107	+ 96	+ 84	+109	+132	+ 88	+ 37	+ 36	+ 74
7 51	+ 68	+ 75	+ 43	+ 24	+ 17	+ 17	+ 13	+ 4	+ 4	+ 48	+ 33	+ 69	+ 35
8 51	+ 79	+ 98	— 11	— 79	—114	—110	— 90	—142	—136	— 29	— 23	+ 26	— 44
Range ..	202	209	240	319	323	360	293	350	397	266	147	174	238
Summed Range ..	853	873	1,119	1,542	1,658	1,848	1,440	1,696	1,900	1,167	592	613	1,109

TABLE XIV*f*.—*Showing for the summer months (April to September), the winter months (January to March and October to December), and the whole year, the mean diurnal inequality of Vertical Force during the period 1916—1920.*

Unity = 0·1 γ

Years. Bombay Civil time.	1916. April to September.	1916. January to March and October to December.	1916. Year.	1917. April to September.	1917. January to March and October to December.	1917. Year.	1918. April to September.	1918. January to March and October to December.	1918. Year.	1919. April to September.	1919. January to March and October to December.	1919. Year.	1920. April to September.	1920. January to March and October to December.	1920. Year.
H. m.															
9 51	—201	— 76	—138	—186	— 68	—127	—197	— 47	—122	—176	— 69	—123	—205	— 54	—129
10 51	—233	—118	—175	—225	—119	—172	—229	— 89	—159	—208	—113	—160	—221	—107	—164
11 51	—202	—100	—151	—205	—103	—154	—199	— 75	—137	—189	— 98	—143	—183	— 90	—136
12 51	—116	— 40	— 78	—129	— 51	— 90	—116	— 12	— 64	—119	— 39	— 79	— 92	— 44	— 68
13 51	— 27	— 4	— 16	— 43	— 15	— 29	— 34	+ 23	— 5	— 41	0	— 20	— 13	— 12	— 13
14 51	+ 34	+ 18	+ 26	+ 15	— 5	+ 5	+ 16	+ 23	+ 19	+ 19	+ 19	+ 19	+ 42	+ 7	+ 24
15 51	+ 63	+ 16	+ 40	+ 39	— 7	+ 16	+ 33	— 1	+ 16	+ 46	+ 12	+ 29	+ 64	+ 11	+ 37
16 51	+ 54	— 9	+ 22	+ 24	— 26	— 1	+ 19	— 32	— 6	+ 31	— 20	+ 6	+ 45	— 7	+ 19
17 51	+ 16	— 12	+ 2	+ 2	— 24	— 11	+ 1	— 29	— 14	+ 7	— 25	— 9	+ 10	— 6	+ 2
18 51	— 7	+ 10	+ 1	— 17	+ 15	— 1	— 18	+ 3	— 8	— 15	+ 5	— 5	— 4	+ 11	+ 3
19 51	+ 12	+ 9	+ 10	+ 2	+ 11	+ 6	+ 1	+ 2	+ 2	+ 2	+ 10	+ 6	+ 9	+ 13	+ 11
20 51	+ 26	+ 11	+ 18	+ 22	+ 7	+ 15	+ 22	0	+ 11	+ 20	+ 13	+ 16	+ 27	+ 13	+ 27
21 51	+ 40	+ 24	+ 32	+ 39	+ 21	+ 30	+ 39	+ 15	+ 27	+ 38	+ 25	+ 31	+ 41	+ 18	+ 30
22 51	+ 50	+ 33	+ 41	+ 51	+ 35	+ 43	+ 53	+ 24	+ 39	+ 51	+ 30	+ 40	+ 51	+ 24	+ 37
23 51	+ 53	+ 31	+ 42	+ 60	+ 38	+ 49	+ 61	+ 24	+ 43	+ 59	+ 29	+ 44	+ 53	+ 22	+ 37
0 51	+ 53	+ 27	+ 40	+ 63	+ 31	+ 47	+ 63	+ 21	+ 42	+ 61	+ 29	+ 45	+ 53	+ 19	+ 36
1 51	+ 53	+ 21	+ 37	+ 60	+ 29	+ 44	+ 62	+ 18	+ 40	+ 59	+ 24	+ 41	+ 51	+ 14	+ 32
2 51	+ 49	+ 15	+ 32	+ 57	+ 21	+ 39	+ 59	+ 11	+ 35	+ 51	+ 16	+ 34	+ 47	+ 8	+ 27
3 51	+ 52	+ 13	+ 33	+ 62	+ 16	+ 39	+ 58	+ 6	+ 32	+ 53	+ 13	+ 33	+ 48	+ 5	+ 27
4 51	+ 67	+ 14	+ 40	+ 78	+ 22	+ 50	+ 74	+ 9	+ 41	+ 64	+ 15	+ 39	+ 63	+ 12	+ 37
5 51	+127	+ 26	+ 77	+150	+ 36	+ 93	+137	+ 20	+ 79	+117	+ 25	+ 71	+109	+ 25	+ 67
6 51	+119	+ 39	+ 79	+137	+ 53	+ 95	+139	+ 30	+ 85	+122	+ 42	+ 82	+106	+ 42	+ 74
7 51	+ 25	+ 50	+ 38	+ 34	+ 61	+ 47	+ 44	+ 41	+ 42	+ 35	+ 47	+ 41	+ 13	+ 56	+ 35
8 51	—103	+ 6	— 49	— 88	+ 13	— 37	— 89	+ 10	— 39	— 84	+ 9	— 38	—112	+ 23	— 44
Range ..	360	168	254	375	180	267	368	130	244	330	160	242	330	163	238
Summed Range ..	1,782	722	1,237	1,788	826	1,240	1,763	565	1,107	1,667	727	1,154	1,662	643	1,199

TABLE XVa.—*Showing the mean diurnal inequality of Inclination for each month of the year 1916, and for the whole year.*

Unity = 0·01 minute of arc.

1916. Bombay Civil time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
9 51	—135	— 72	—191	—252	—246	—243	—246	—237	—260	—198	—129	—114	—194
10 51	—210	—132	—263	—339	—271	—298	—301	—264	—288	—259	—159	—146	—244
11 51	—189	—152	—260	—321	—237	—277	—284	—232	—254	—242	—121	—108	—223
12 51	—112	—109	—184	—229	—160	—202	—196	—165	—132	—135	— 51	— 42	—143
13 51	— 40	— 77	— 95	—116	— 55	—101	—102	— 71	— 29	— 45	— 17	— 8	— 63
14 51	+ 23	— 45	— 14	— 15	+ 10	— 15	— 4	+ 6	+ 40	+ 28	— 3	+ 5	+ 1
15 51	+ 51	— 3	+ 29	+ 42	+ 55	+ 60	+ 66	+ 57	+ 72	+ 43	+ 17	+ 8	+ 41
16 51	+ 34	+ 14	+ 22	+ 60	+ 86	+ 82	+ 95	+ 73	+ 50	+ 18	+ 22	+ 16	+ 48
17 51	+ 30	+ 22	+ 12	+ 50	+ 47	+ 78	+ 83	+ 58	+ 22	+ 27	+ 30	+ 36	+ 41
18 51	+ 56	+ 37	+ 50	+ 43	+ 26	+ 55	+ 48	+ 46	+ 36	+ 55	+ 59	+ 44	+ 46
19 51	+ 53	+ 41	+ 67	+ 68	+ 47	+ 67	+ 69	+ 54	+ 53	+ 48	+ 58	+ 46	+ 56
20 51	+ 53	+ 50	+ 93	+ 88	+ 67	+ 81	+ 70	+ 53	+ 61	+ 71	+ 46	+ 43	+ 65
21 51	+ 57	+ 53	+ 93	+ 97	+ 83	+ 85	+ 67	+ 60	+ 62	+ 75	+ 64	+ 53	+ 71
22 51	+ 49	+ 66	+ 86	+111	+ 78	+ 89	+ 82	+ 60	+ 66	+ 83	+ 62	+ 48	+ 73
23 51	+ 46	+ 72	+ 86	+108	+ 77	+ 85	+ 81	+ 60	+ 68	+ 69	+ 41	+ 41	+ 69
0 51	+ 48	+ 51	+ 82	+105	+ 76	+ 84	+ 74	+ 58	+ 58	+ 51	+ 42	+ 33	+ 63
1 51	+ 23	+ 47	+ 71	+101	+ 76	+ 80	+ 70	+ 63	+ 55	+ 60	+ 40	+ 29	+ 60
2 51	+ 32	+ 38	+ 56	+ 87	+ 67	+ 77	+ 71	+ 65	+ 48	+ 44	+ 26	+ 17	+ 52
3 51	+ 33	+ 28	+ 55	+ 78	+ 70	+ 79	+ 75	+ 62	+ 59	+ 46	+ 19	+ 21	+ 52
4 51	+ 17	+ 26	+ 58	+ 82	+ 85	+ 81	+ 88	+ 80	+ 63	+ 52	+ 12	+ 7	+ 54
5 51	+ 19	+ 20	+ 72	+116	+127	+117	+136	+126	+119	+ 70	+ 19	+ 6	+ 79
6 51	+ 27	+ 11	+ 93	+117	+ 77	+ 84	+ 98	+109	+134	+ 91	0	— 6	+ 70
7 51	+ 44	+ 21	+ 49	+ 27	— 24	— 4	— 4	+ 13	+ 26	+ 27	— 12	+ 6	+ 14
8 51	— 8	— 5	— 61	—106	—153	—137	—140	—131	—135	— 83	— 62	— 37	— 88
Range ..	267	224	356	456	398	415	437	390	422	350	223	199	323
*Summed range..	1,389	1,192	2,142	2,758	2,300	2,561	2,550	2,203	2,190	1,920	1,111	920	1,910

TABLE XVb.—*Showing the mean diurnal inequality of Inclination for each month of the year 1917, and for the whole year.*

Unity = 0·01 minute of arc.

1917. Bombay Civil time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
9 51	—148	— 82	—211	—268	—258	—193	—242	—243	—316	—239	—148	— 66	—201
10 51	—219	—180	—301	—321	—294	—277	—297	—315	—390	—293	—204	—115	—267
11 51	—191	—209	—291	—301	—263	—283	—286	—318	—375	—271	—154	—119	—255
12 51	—108	—177	—198	—197	—203	—236	—220	—237	—267	—174	— 98	— 84	—183
13 51	— 38	—101	— 81	— 76	—102	—157	—139	—152	—116	— 78	— 64	— 68	— 98
14 51	+ 7	— 46	— 2	— 2	— 30	— 77	— 44	— 50	— 3	— 18	— 45	— 60	— 31
15 51	+ 30	— 6	+ 18	+ 33	+ 28	+ 7	+ 25	+ 19	+ 41	0	— 12	— 24	+ 13
16 51	+ 25	+ 12	0	+ 45	+ 48	+ 45	+ 55	+ 56	+ 21	— 8	+ 5	— 10	+ 25
17 51	+ 37	+ 10	— 1	+ 44	+ 48	+ 57	+ 62	+ 49	+ 11	+ 16	+ 19	+ 8	+ 30
18 51	+ 70	+ 43	+ 45	+ 47	+ 33	+ 29	+ 27	+ 48	+ 49	+ 64	+ 64	+ 38	+ 46
19 51	+ 67	+ 55	+ 67	+ 68	+ 58	+ 56	+ 51	+ 58	+ 66	+ 72	+ 68	+ 51	+ 61
20 51	+ 60	+ 52	+ 79	+ 88	+ 83	+ 78	+ 69	+ 80	+ 88	+ 76	+ 76	+ 68	+ 75
21 51	+ 64	+ 61	+ 94	+ 97	+ 97	+ 90	+ 82	+ 90	+ 99	+ 95	+ 76	+ 78	+ 85
22 51	+ 60	+ 78	+ 96	+100	+100	+ 96	+ 91	+102	+113	+103	+ 83	+ 87	+ 92
23 51	+ 54	+ 84	+103	+ 98	+101	+ 97	+100	+103	+121	+111	+ 75	+ 81	+ 94
0 51	+ 48	+ 64	+ 82	+ 99	+110	+ 91	+103	+ 89	+124	+103	+ 64	+ 73	+ 87
1 51	+ 42	+ 56	+ 83	+ 89	+ 99	+ 91	+ 99	+ 90	+110	+ 94	+ 62	+ 54	+ 81
2 51	+ 35	+ 51	+ 83	+ 80	+ 97	+ 91	+ 90	+ 73	+112	+ 84	+ 57	+ 38	+ 74
3 51	+ 25	+ 36	+ 76	+ 81	+ 96	+ 92	+ 89	+ 77	+112	+ 72	+ 46	+ 34	+ 70
4 51	+ 10	+ 39	+ 80	+ 89	+108	+102	+ 98	+ 99	+122	+ 76	+ 42	+ 21	+ 74
5 51	+ 14	+ 40	+100	+126	+147	+144	+153	+161	+184	+ 90	+ 37	+ 10	+101
6 51	+ 28	+ 47	+109	+113	+ 84	+119	+121	+172	+193	+109	+ 16	— 32	+ 90
7 51	+ 42	+ 55	+ 42	+ 7	— 38	+ 29	+ 17	+ 55	+ 56	+ 26	+ 1	— 29	+ 22
8 51	— 17	+ 6	— 79	—137	—148	— 97	—108	—108	—148	—113	— 76	— 34	— 88
Range ..	289	293	410	447	441	427	450	490	583	404	287	206	368
*Summed range..	1,439	1,590	2,321	2,606	2,673	2,634	2,668	2,844	3,237	2,385	1,592	1,282	2,243

* Summed range means sum without regard to sign of the twenty-four ordinates of the diurnal inequality.

For the magnitude of the temperature and aperiodic corrections applicable to the diurnal inequalities, *vide* Tables XVI, XVII, XVIII and XX from which the corrections can be derived.

The diurnal inequality of *inclination* is derived directly from the diurnal inequalities of H and V, by the use of the formula $\frac{d\,I}{\sin 1'.\,H} = d\,V\left(\frac{\cos^2 I}{\sin 1'.\,H}\right) - d\,H\left(\frac{\sin 2\,I}{2\sin 1'.\,H}\right)$, where I is the angle of the dip, V and H are the absolute values of vertical force and horizontal force and d I, d V and d H are the ordinates of the diurnal inequality of I, V and H respectively. The factors for d V and d H are determined from the mean annual values of H and I for the years 1916 to 1920; 0·1λ corresponds in arc to 0′·00772, 0′·00771, 0′·00769, 0′·00767, 0′·00766 for d V and to 0′·00352, 0′·00353, 0′·00354, 0′·00355, and 0′·00356 for d H respectively for these years. It will be seen that the diurnal inequalities derived from these factors are sufficiently accurate for the requirements.

TABLE XVc.—*Showing the mean diurnal inequality of Inclination for each month of the year 1918, and for the whole year.*

Unity=0·01 Minute of arc.

1918. Bombay Civil Time.	Month. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
9 51	− 18	−102	−191	−292	−267	−219	−219	−226	−271	−221	−138	−125	−191
10 51	− 88	−177	−263	−352	−307	−295	−261	−281	−302	−300	−175	−157	−247
11 51	−126	−205	−264	−319	−279	−277	−245	−269	−288	−279	−134	−127	−234
12 51	− 96	−131	−186	−204	−184	−211	−196	−213	−184	−154	− 56	− 54	−156
13 51	− 77	− 71	− 77	−101	− 70	−117	−125	−133	− 65	− 41	+ 1	+ 3	− 73
14 51	− 82	− 22	− 6	− 26	− 1	− 21	− 57	− 53	+ 9	+ 24	+ 12	+ 33	− 16
15 51	− 56	+ 5	+ 9	+ 19	+ 45	+ 32	+ 6	+ 9	+ 33	+ 22	+ 8	+ 31	+ 14
16 51	− 11	0	− 6	+ 37	+ 52	+ 57	+ 49	+ 52	+ 22	+ 11	+ 6	+ 13	+ 23
17 51	+ 14	− 7	+ 1	+ 30	+ 42	+ 72	+ 54	+ 52	+ 18	+ 26	+ 23	+ 29	+ 29
18 51	+ 46	+ 34	+ 46	+ 38	+ 28	+ 52	+ 50	+ 34	+ 47	+ 68	+ 51	+ 59	+ 46
19 51	+ 59	+ 46	+ 75	+ 77	+ 54	+ 56	+ 38	+ 39	+ 70	+ 83	+ 50	+ 57	+ 59
20 51	+ 61	+ 50	+ 81	+ 98	+ 73	+ 77	+ 59	+ 45	+ 92	+ 96	+ 57	+ 48	+ 70
21 51	+ 73	+ 68	+ 97	+111	+ 76	+ 84	+ 78	+ 70	+ 91	+106	+ 68	+ 71	+ 83
22 51	+ 73	+ 84	+ 90	+113	+ 85	+ 83	+ 86	+ 81	+ 97	+102	+ 60	+ 55	+ 84
23 51	+ 64	+ 78	+ 93	+113	+ 82	+ 89	+ 94	+ 91	+ 88	+ 87	+ 48	+ 27	+ 79
0 51	+ 59	+ 74	+ 77	+110	+ 87	+ 90	+ 88	+101	+ 90	+ 72	+ 46	+ 27	+ 77
1 51	+ 47	+ 55	+ 76	+102	+ 82	+ 80	+ 87	+104	+ 78	+ 71	+ 43	0	+ 69
2 51	+ 38	+ 53	+ 60	+ 92	+ 79	+ 78	+ 81	+ 94	+ 67	+ 60	+ 38	+ 16	+ 63
3 51	+ 25	+ 44	+ 58	+ 86	+ 80	+ 80	+ 81	+ 87	+ 64	+ 57	+ 24	+ 9	+ 58
4 51	+ 10	+ 37	+ 61	+ 97	+101	+ 88	+ 87	+100	+ 71	+ 56	+ 23	+ 9	+ 62
5 51	+ 2	+ 31	+ 91	+127	+144	+136	+132	+151	+122	+ 69	+ 22	+ 8	+ 86
6 51	− 30	+ 22	+109	+134	+117	+101	+118	+143	+146	+ 90	+ 6	+ 4	+ 80
7 51	− 7	+ 41	+ 39	+ 33	+ 17	+ 5	+ 28	+ 40	+ 32	+ 10	− 10	+ 4	+ 19
8 51	+ 7	− 11	− 76	−124	−134	−120	−101	−112	−122	−107	− 70	− 44	− 85
Range ..	199	289	373	486	451	431	393	432	448	406	243	228	333
Summed Range..	1,169	1,448	2,132	2,835	2,486	2,520	2,420	2,580	2,469	2,212	1,169	1,010	2,003

TABLE XVd.—*Showing the mean diurnal inequality of Inclination for each month of the year 1919, and for the whole year.*

Unity=0·01 Minute of arc.

1919. Bombay Civil Time.	Month. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
9 51	−118	−182	−153	−237	−248	−225	−196	−229	−245	−187	−140	− 86	−187
10 51	−198	−221	−220	−294	−284	−280	−251	−273	−316	−231	−182	−125	−240
11 51	−184	−186	−235	−280	−248	−265	−249	−280	−298	−207	−154	−126	−226
12 51	−108	− 86	−174	−209	−168	−210	−214	−223	−210	−109	− 81	− 96	−157
13 51	− 45	− 3	− 63	− 96	− 76	−131	−152	−113	− 98	− 49	− 51	− 44	− 77
14 51	− 2	+ 47	+ 7	− 8	− 7	− 35	− 61	+ 4	− 9	− 10	− 38	0	− 9
15 51	+ 27	+ 59	+ 33	+ 44	+ 30	+ 41	+ 19	+ 55	+ 31	+ 15	− 17	+ 23	+ 30
16 51	+ 8	+ 22	+ 21	+ 25	+ 47	+ 72	+ 60	+ 85	+ 20	0	+ 7	+ 35	+ 33
17 51	+ 16	+ 11	+ 8	+ 29	+ 49	+ 76	+ 55	+ 59	+ 19	+ 27	+ 18	+ 44	+ 34
18 51	+ 46	+ 47	+ 44	+ 46	+ 47	+ 35	+ 28	+ 42	+ 39	+ 42	+ 53	+ 56	+ 44
19 51	+ 49	+ 46	+ 57	+ 77	+ 66	+ 53	+ 45	+ 75	+ 64	+ 33	+ 69	+ 69	+ 59
20 51	+ 52	+ 49	+ 68	+ 80	+ 85	+ 70	+ 65	+ 72	+ 87	+ 64	+ 70	+ 66	+ 69
21 51	+ 61	+ 45	+ 82	+ 98	+ 90	+ 82	+ 78	+ 75	+100	+ 76	+ 88	+ 64	+ 78
22 51	+ 56	+ 50	+ 89	+ 98	+ 85	+ 89	+ 92	+ 86	+109	+ 86	+ 83	+ 43	+ 81
23 51	+ 61	+ 63	+ 78	+ 98	+ 88	+ 87	+ 94	+ 95	+102	+ 85	+ 73	+ 42	+ 81
0 51	+ 47	+ 50	+ 73	+ 95	+ 87	+ 84	+ 99	+ 89	+ 98	+ 76	+ 65	+ 44	+ 76
1 51	+ 59	+ 60	+ 70	+ 84	+ 74	+ 82	+ 91	+ 85	+ 89	+ 59	+ 56	+ 26	+ 70
2 51	+ 38	+ 50	+ 48	+ 80	+ 70	+ 81	+ 82	+ 60	+ 80	+ 54	+ 44	+ 17	+ 59
3 51	+ 36	+ 46	+ 46	+ 77	+ 63	+ 82	+ 78	+ 72	+ 72	+ 49	+ 41	+ 4	+ 55
4 51	+ 24	+ 36	+ 45	+ 73	+ 70	+ 92	+ 87	+ 71	+ 70	+ 48	+ 37	+ 1	+ 55
5 51	+ 27	+ 37	+ 40	+ 97	+119	+136	+120	+116	+111	+ 65	+ 26	− 5	+ 74
6 51	+ 29	+ 27	+ 72	+108	+ 90	+109	+105	+142	+ 77	+ 10	− 23	+ 70	
7 51	+ 45	+ 4	+ 24	+ 22	+ 5	+ 7	+ 18	+ 2	+ 56	+ 11	− 13	− 9	+ 14
8 51	− 20	− 72	− 52	− 98	−125	−136	− 95	−129	−112	− 72	− 69	− 18	− 83
Range ..	259	284	324	402	403	416	371	396	458	317	270	195	321
Summed Range..	1,356	1,499	1,792	2,453	2,321	2,560	2,434	2,495	2,577	1,732	1,485	1,066	1,961

TABLE XVe.—*Showing the mean diurnal inequality of Inclination for each month of the year 1920, and for the whole year.*

Unity=0·01 minute of arc.

1920.	Month.												
Bombay Civil time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
9 51	− 47	− 25	−220	−261	−268	−222	−235	−238	−272	−190	−159	−130	−189
10 51	−156	−107	−295	−296	−280	−284	−265	−253	−305	−244	−174	−171	−236
11 51	−181	−161	−282	−277	−238	−276	−221	−213	−258	−212	−109	−111	−212
12 51	−139	−161	−205	−181	−148	−187	−146	−145	−144	−130	− 39	− 42	−139
13 51	− 96	−151	− 84	− 77	− 62	− 90	− 71	− 69	− 41	− 35	0	+ 5	− 64
14 51	− 53	−114	− 8	+ 6	+ 13	− 5	+ 2	+ 2	+ 39	+ 15	+ 25	+ 36	− 3
15 51	+ 6	− 54	+ 25	+ 57	+ 66	+ 54	+ 61	+ 60	+ 69	+ 33	+ 29	+ 35	+ 37
16 51	+ 37	+ 9	− 7	+ 50	+ 63	+ 78	+ 83	+ 72	+ 53	+ 14	+ 17	+ 31	+ 42
17 51	+ 36	+ 27	+ 5	+ 52	+ 50	+ 78	+ 66	+ 51	+ 14	+ 26	+ 29	+ 55	+ 41
18 51	+ 59	+ 58	+ 60	+ 61	+ 35	+ 51	+ 38	+ 36	+ 42	+ 56	+ 53	+ 65	+ 51
19 51	+ 66	+ 63	+ 93	+ 63	+ 50	+ 60	+ 43	+ 49	+ 63	+ 72	+ 60	+ 56	+ 61
20 51	+ 68	+ 71	+117	+ 87	+ 69	+ 72	+ 59	+ 61	+ 64	+ 75	+ 65	+ 49	+ 71
21 51	+ 62	+ 79	+112	+ 89	+ 85	+ 85	+ 69	+ 64	+ 72	+ 77	+ 65	+ 49	+ 76
22 51	+ 70	+ 93	+117	+ 91	+ 89	+ 83	+ 80	+ 69	+ 67	+ 74	+ 68	+ 33	+ 78
23 51	+ 55	+ 91	+118	+ 96	+ 85	+ 81	+ 74	+ 59	+ 71	+ 65	+ 45	+ 31	+ 73
0 51	+ 47	+ 69	+ 91	+ 82	+ 79	+ 83	+ 72	+ 64	+ 52	+ 64	+ 29	+ 22	+ 63
1 51	+ 33	+ 62	+ 98	+ 72	+ 76	+ 75	+ 68	+ 63	+ 79	+ 54	+ 21	+ 15	+ 60
2 51	+ 32	+ 46	+ 90	+ 59	+ 76	+ 68	+ 65	+ 74	+ 56	+ 41	+ 12	− 2	+ 51
3 51	+ 25	+ 33	+ 61	+ 62	+ 73	+ 68	+ 64	+ 63	+ 57	+ 39	+ 7	− 11	+ 45
4 51	+ 10	+ 17	+ 68	+ 58	+ 86	+ 82	+ 75	+ 73	+ 73	+ 36	+ 13	− 2	+ 49
5 51	+ 9	+ 9	+ 69	+ 88	+ 95	+114	+105	+122	+110	+ 54	+ 20	+ 5	+ 67
6 51	+ 6	+ 3	+ 66	+ 98	+ 83	+ 75	+ 69	+ 96	+137	+ 74	+ 17	+ 9	+ 61
7 51	+ 30	+ 31	+ 5	+ 25	− 18	− 8	− 19	− 5	+ 22	+ 18	− 12	+ 14	+ 7
8 51	+ 23	+ 15	− 99	−107	−155	−133	−137	−148	−129	− 73	− 77	− 37	− 88
Range	251	254	413	394	375	398	370	375	442	321	242	236	314
Summed Range..	1,346	1,549	2,395	2,395	2,342	2,412	2,187	2,149	2,289	1,771	1,145	1,016	1,864

TABLE XVf.—*Showing for the Summer months (April to September), the winter months (January to March and October to December), and the whole year, the mean diurnal inequality of Inclination during the period 1916—1920.*

Unity=0·01 minute of arc.

Years.	1916.			1917.			1918.			1919.			1920.		
Bombay Civil time.	April to September.	January to March and October to December.	Year.	April to September.	January to March and October to December.	Year.	April to September.	January to March and October to December.	Year.	April to September.	January to March and October to December.	Year.	April to September.	January to March and October to December.	Year.
H. m.															
9 51	−247	−140	−194	−253	−149	−201	−249	−133	−191	−230	−144	−187	−249	−129	−189
10 51	−293	−195	−244	−316	−219	−267	−300	−193	−247	−283	−196	−240	−281	−191	−236
11 51	−267	−179	−223	−304	−206	−255	−279	−189	−234	−270	−182	−226	−247	−176	−212
12 51	−181	−106	−143	−227	−140	−183	−199	−113	−156	−206	−109	−157	−159	−119	−139
13 51	− 79	− 47	− 63	−124	− 72	− 98	−102	− 44	− 73	−111	− 43	− 77	− 68	− 60	− 64
14 51	+ 4	− 1	+ 1	− 34	− 27	− 31	− 25	− 7	− 16	− 19	+ 1	− 9	+ 9	− 17	− 3
15 51	+ 59	+ 24	+ 41	+ 25	+ 1	+ 13	+ 24	+ 3	+ 14	+ 37	+ 23	+ 30	+ 61	+ 12	+ 37
16 51	+ 74	+ 21	+ 48	+ 45	+ 4	+ 25	+ 45	+ 2	+ 23	+ 51	+ 15	+ 33	+ 67	+ 17	+ 42
17 51	+ 56	+ 26	+ 41	+ 45	+ 15	+ 30	+ 45	+ 14	+ 29	+ 48	+ 21	+ 34	+ 52	+ 30	+ 41
18 51	+ 42	+ 50	+ 46	+ 39	+ 54	+ 46	+ 41	+ 51	+ 46	+ 39	+ 48	+ 44	+ 44	+ 59	+ 51
19 51	+ 60	+ 52	+ 56	+ 59	+ 63	+ 61	+ 56	+ 62	+ 59	+ 63	+ 54	+ 59	+ 55	+ 68	+ 61
20 51	+ 70	+ 59	+ 65	+ 81	+ 69	+ 75	+ 74	+ 65	+ 70	+ 77	+ 61	+ 69	+ 69	+ 74	+ 71
21 51	+ 76	+ 66	+ 71	+ 93	+ 78	+ 85	+ 85	+ 81	+ 83	+ 87	+ 69	+ 78	+ 77	+ 74	+ 76
22 51	+ 81	+ 66	+ 73	+100	+ 85	+ 92	+ 91	+ 77	+ 84	+ 93	+ 68	+ 81	+ 80	+ 76	+ 78
23 51	+ 80	+ 59	+ 69	+103	+ 85	+ 94	+ 93	+ 66	+ 79	+ 94	+ 67	+ 81	+ 78	+ 67	+ 73
0 51	+ 76	+ 51	+ 63	+103	+ 72	+ 87	+ 94	+ 59	+ 77	+ 92	+ 59	+ 76	+ 72	+ 54	+ 63
1 51	+ 74	+ 45	+ 60	+ 96	+ 65	+ 81	+ 89	+ 49	+ 69	+ 84	+ 55	+ 70	+ 72	+ 47	+ 60
2 51	+ 69	+ 35	+ 52	+ 91	+ 58	+ 74	+ 82	+ 44	+ 63	+ 75	+ 42	+ 59	+ 66	+ 37	+ 51
3 51	+ 71	+ 34	+ 52	+ 91	+ 48	+ 70	+ 80	+ 36	+ 58	+ 74	+ 37	+ 55	+ 65	+ 26	+ 45
4 51	+ 80	+ 29	+ 54	+103	+ 45	+ 74	+ 91	+ 33	+ 62	+ 77	+ 32	+ 55	+ 75	+ 24	+ 49
5 51	+123	+ 34	+ 79	+153	+ 49	+101	+135	+ 37	+ 86	+117	+ 32	+ 74	+106	+ 28	+ 67
6 51	+103	+ 36	+ 70	+134	+ 46	+ 90	+127	+ 33	+ 80	+110	+ 30	+ 70	+ 93	+ 29	+ 61
7 51	+ 6	+ 23	+ 14	+ 21	+ 23	+ 22	+ 26	+ 13	+ 19	+ 18	+ 10	+ 14	− 1	+ 14	+ 7
8 51	−134	− 43	− 88	−124	− 52	− 88	−119	− 50	− 85	−116	− 51	− 83	−135	− 41	− 88
Range ..	416	261	323	469	304	368	435	274	333	400	265	321	387	267	314
Summed Range ..	2,405	1,421	1,910	2,764	1,725	2,243	2,551	1,454	2,003	2,471	1,449	1,961	2,281	1,469	1,864

TABLE XVI.—*Showing the mean temperatures in the Horizontal Force Magnetograph enclosure and the excesses over the means for each of the five observation hours during the period 1916 to 1920.*

Months.	H. m. 9 52	H. m. 13 52	H. m. 15 52	H. m. 21 52	H. m. 5 52	Monthly and Yearly means.	Months.	H. m. 9 52	H. m. 13 52	H. m. 15 52	H. m. 21 52	H. m. 5 52	Monthly and Yearly means.
	1916.							1917.					
	°	°	°	°	°	°		°	°	°	°	°	°
January ..	−·01	−·02	·00	+·06	−·05	83·13	January ..	−·03	−·02	·00	+·05	−·02	82·91
February ..	+·02	−·02	−·01	+·05	−·04	81·92	February ..	−·01	−·02	+·01	+·05	−·01	82·75
March ..	−·04	−·04	−·01	+·02	+·05	83·79	March ..	−·02	−·03	−·01	+·05	·00	84·04
April ..	−·02	−·04	−·02	+·02	+·06	87·23	April ..	−·01	−·04	−·03	+·02	+·04	86·85
May ..	·00	−·03	−·02	+·02	+·05	89·55	May ..	+·01	−·02	−·02	·00	+·05	88·94
June ..	+·04	+·01	·00	−·01	−·07	89·74	June ..	+·05	+·02	+·01	−·02	−·06	89·48
July ..	+·03	+·01	·00	−·01	−·01	88·33	July ..	+·03	+·02	−·01	+·01	−·07	87·07
August ..	+·03	+·01	·00	−·01	−·02	86·07	August ..	+·03	+·01	·00	−·02	−·03	86·65
September ..	+·02	−·01	−·03	·00	+·01	87·04	September ..	+·02	−·02	−·01	·00	·00	85·65
October ..	+·02	−·02	−·02	+·03	−·01	87·37	October ..	+·01	·00	·00	·00	−·02	86·10
November ..	·00	−·01	+·01	+·04	−·03	87·49	November ..	·00	·00	+·02	+·06	−·06	85·35
December ..	+·02	·00	+·02	+·05	−·09	85·48	December ..	·00	−·01	+·01	+·07	−·07	83·51
April to September ..	+·02	−·01	−·01	·00	·00	87·99	April to September ..	+·02	−·01	−·01	·00	−·01	87·44
October to March .	·00	−·02	·00	+·04	−·03	84·86	October to March ..	−·01	−·01	+·01	+·05	−·03	84·11
Year ..	+·01	−·01	−·01	+·02	−·01	86·43	Year ..	+·01	−·01	·00	+·02	−·02	85·77
	1918.							1919.					
January ..	−·01	−·02	+·01	+·10	−·06	81·90	January ..	+·02	−·02	−·01	+·06	−·06	84·03
February ..	−·02	−·04	·00	+·08	−·02	82·25	February ..	+·01	−·03	−·01	+·05	−·02	82·62
March ..	−·03	−·04	−·02	+·07	+·01	84·76	March ..	−·01	−·04	−·03	+·05	+·01	83·73
April ..	−·01	−·04	−·02	+·05	+·03	86·42	April ..	−·02	−·05	−·03	+·06	+·06	86·64
May ..	·00	−·03	−·01	+·01	+·02	89·27	May ..	·00	−·05	−·05	+·03	+·06	89·47
June ..	+·03	+·01	+·01	−·01	−·03	88·58	June ..	+·07	+·03	+·01	−·02	−·07	89·91
July ..	+·01	·00	+·02	·00	−·05	87·70	July ..	+·02	+·01	+·02	+·02	−·07	87·23
August ..	+·02	·00	·00	+·01	−·04	87·12	August ..	+·03	+·01	+·01	·00	−·06	85·69
September ..	+·01	−·04	−·04	+·03	+·03	87·66	September ..	−·02	−·03	−·01	+·04	+·03	86·41
October ..	·00	−·04	−·02	+·06	−·02	89·05	October ..	+·01	−·01	·00	+·04	−·01	88·14
November ..	−·01	−·02	·00	+·08	−·04	88·98	November ..	+·02	−·01	·00	+·05	−·04	88·52
December ..	·00	−·02	+·01	+·08	−·10	86·37	December ..	+·02	·00	+·01	+·07	−·10	86·30
April to September ..	+·01	+·02	−·01	+·01	−·01	87·79	April to September ..	+·01	−·01	·00	+·02	−·01	87·56
October to March ..	−·01	−·03	·00	+·08	−·04	85·55	October to March ..	+·01	−·02	−·01	+·05	−·04	85·56
Year ..	·00	−·02	−·01	+·05	−·02	86·67	Year ..	+·01	−·02	−·01	+·04	−·02	86·56
	1920.												
January ..	−·01	−·01	·00	+·08	−·04	84·88	July ..	+·05	+·02	+·03	−·01	−·12	86·23
February ..	·00	−·02	·00	+·06	−·05	83·82	August ..	−·01	−·01	·00	+·03	·00	85·17
March ..	−·03	−·05	−·01	+·05	+·02	85·57	September ..	+·01	−·02	−·02	·00	+·01	86·89
April ..	−·01	−·04	−·02	+·04	+·01	87·89	October ..	·00	−·02	·00	+·05	−·03	88·97
May ..	+·01	−·03	−·03	+·02	+·03	90·33	November ..	·00	−·01	+·02	+·07	−·09	88·07
June ..	+·04	+·01	+·03	+·01	−·07	90·31	December ..	+·01	+·01	+·03	+·09	−·12	85·41
							April to September ..	+·01	−·01	·00	+·01	−·02	87·80
							October to March ..	−·01	−·02	+·01	+·07	−·05	86·12
							Year ..	+·01	−·01	·00	+·04	−·04	86·96

TABLE XVII.—*Showing the mean temperatures in the Vertical Force Magnetograph enclosure and the excesses over the means for each of the five observation hours during the period 1916 to 1920.*

Months.	H. m. 9 50	H. m. 13 50	H. m. 15 50	H. m. 21 50	H. m. 5 50	Monthly and Yearly means.
			1916.			
	°	°	°	°	°	°
January ..	−·02	−·01	·00	+·06	−·04	83·03
February ..	+·03	·00	−·01	+·03	−·03	81·97
March ..	− 04	−·03	−·01	+·02	+·05	83·72
April ..	−·03	−·03	−·03	+·02	+·04	87·20
May ..	−·02	−·03	−·03	+·02	+·03	89·57
June ..	+·04	+·01	+·01	−·01	−·07	89·72
July ..	+·02	·00	·00	−·01	−·02	88·30
August ..	+·03	+·01	·00	−·01	−·03	85·99
September ..	+·01	−·01	−·02	·00	·00	86·98
October ..	+·02	−·01	−·02	+·04	·00	87·32
November ..	·00	−·01	·00	+·05	−·03	87·44
December ..	+·02	+·01	+·01	+·06	−·08	85·39
April to September ..	+·01	−·01	−·01	·00	−·01	87·96
October to March ..	·00	−·01	−·01	+·04	−·02	84·81
Year ..	+·01	−·01	−·01	+·02	−·01	86·39
			1917.			
January ..	−·03	−·02	·00	+·06	−·02	82·82
February ..	−·01	−·02	·00	+·05	−·02	82·65
March ..	−·02	−·03	−·01	+·04	−·01	83·96
April ..	−·02	−·03	−·02	+·01	+·03	86·83
May ..	·00	−·02	−·02	·00	+·03	88·96
June ..	+·04	+·02	+·01	−·02	−·07	89·52
July ..	+·02	+·01	·00	+·02	−·06	87·02
August ..	+·03	+·02	+·01	−·02	−·03	86·59
September ..	+·01	·00	−·01	−·01	·00	85·60
October ..	+·01	·00	·00	+·01	−·01	86·04
November ..	−·02	−·01	+·01	+·06	−·07	85·29
December ..	−·01	−·01	·00	+·06	−·07	83·43
April to September ..	+·01	·00	−·01	·00	−·02	87·42
October to March ..	−·01	−·01	·00	+·05	−·03	84·03
Year ..	·00	−·01	·00	+·02	−·03	85·73
			1918.			
January ..	−·03	−·03	·00	+·08	−·04	81·85
February ..	−·02	−·03	·00	+·08	−·02	82·16
March ..	−·04	−·03	−·01	+·06	+·01	84·71
April ..	−·01	−·03	−·03	+·03	+·04	86·38
May ..	·00	−·02	−·02	·00	+·02	89·32
June ..	+·03	+·01	+·01	·00	−·04	88·58
July ..	+·01	+·02	+·02	+·01	−·05	87·65
August ..	+·03	+·01	+·01	+·02	−·04	87·05
September ..	·00	−·02	−·04	+·01	+·03	87·62
October ..	·00	−·02	−·01	+·06	−·02	89·04
November ..	−·02	−·02	+·01	+·08	−·06	88·98
December ..	−·01	·00	+·02	+·07	−·10	86·32
April to September ..	+·01	−·01	−·01	+·01	−·01	87·77
October to March ..	−·02	−·02	+·01	+·07	−·04	85·51
Year ..	−·01	−·01	·00	+·04	−·02	86·64
			1919.			
January ..	+·01	−·01	·00	+·06	−·08	83·96
February ..	+·01	−·02	−·01	+·06	−·03	82·53
March ..	−·01	−·03	−·02	+·04	·00	83·66
April ..	−·04	−·03	−·03	+·03	+·05	86·61
May ..	·00	−·03	−·03	+·02	+·06	89·48
June ..	+·05	+·02	+·01	−·03	−·07	89·92
July ..	+·02	·00	+·02	+·01	−·06	87·18
August ..	+·02	·00	+·01	+·01	−·06	85·61
September ..	−·02	−·02	−·02	+·03	+·01	86·37
October ..	−·01	−·02	−·01	+·04	−·02	88·15
November ..	+·01	−·02	·00	+·05	−·06	88·51
December ..	·00	+·01	+·01	+·07	−·10	86·25
April to September ..	+·01	−·01	−·01	+·01	−·01	87·53
October to March ..	·00	−·01	−·01	+·05	−·05	85·51
Year ..	·00	−·01	−·01	+·03	−·03	86·52
			1920.			
January ..	−·02	−·02	·00	+·08	−·06	84·82
February ..	−·01	−·02	−·01	+·06	−·06	83·74
March ..	−·02	−·03	−·02	+·05	+·02	85·56
April ..	−·01	−·02	−·03	+·02	+·03	87·87
May ..	−·01	−·01	−·02	+·02	+·03	90·35
June ..	+·03	+·02	+·01	·00	−·08	90·31
July ..	+·04	+·02	+·03	·00	−·11	86·14
August ..	−·02	−·01	·00	+·03	·00	85·09
September ..	0	+·01	−·01	·00	+·01	86·86
October ..	−·01	−·01	·00	+·03	−·03	89·01
November ..	−·01	−·01	+·02	+·09	−·07	88·06
December ..	·00	·00	+·02	+·09	−·12	85·36
April to September ..	+·01	·00	·00	+·01	−·02	87·77
October to March ..	−·01	−·01	·00	+·07	−·05	86·09
Year ..	·00	−·01	·00	+·04	−·04	86·93

TABLE XVIII.—*Showing the progressive change per day of the Horizontal Force Magnetograph as derived by different processes.*

Unity=0·1γ=0·000001 C. G. S.

Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	April to September.	October to March.	Year.
(1) Derived from the monthly means of the tabulated ordinates.															
1916 ..	+3	−3	−7	−3	−1	+1	0	−1	−3	−1	+1	+1	−1	−1	−1
1917 ..	+1	+3	−3	−5	−1	+1	−4	−1	+3	+1	+1	+2	−1	+1	0
1918 ..	+1	−5	−4	−3	−1	+3	−1	−4	−4	−1	+1	+3	−2	−1	−1
1919 ..	+5	−1	−3	−5	+1	+7	−1	−5	−3	+2	+5	+3	−1	+2	0
1920 ..	+3	−5	−7	0	+2	+5	+3	−3	−5	+1	+5	+5	0	0	0
(2) Derived from the differences in the daily means of the first and the last day of each month.															
1916 ..	+1	0	+22	+1	+11	−8	−14	+15	0	−5	+9	−15	+1	+2	+1
1917 ..	−1	−1	−3	+10	0	−7	+24	−10	+16	−4	−4	−6	+5	−3	+1
1918 ..	+18	+2	+1	+18	−3	−2	+3	0	−1	+11	+10	−17	+4	+4	+3
1919 ..	−3	+3	−6	+4	+6	−3	+3	0	+5	−4	−4	−7	+3	−3	−1
1920 ..	+6	+2	+5	+8	−11	−7	−9	+4	+20	−15	−5	−1	+1	−1	0
(3) Derived from a single tabulated reading at 10 hour of the first day of each month.															
1916 ..	+4	+5	−7	−7	+5	−2	+10	−2	−7	0	−3	+1	0	0	0
1917 ..	+5	+2	+5	−3	−8	+6	−9	−3	+5	−4	+6	+4	−2	+3	+1
1918 ..	−2	−5	+6	−7	−7	+11	+1	−9	−5	+1	−3	−1	−3	−1	−2
1919 ..	+5	−1	+8	+7	−3	0	+1	−1	−1	−5	+1	+6	+1	+2	+1
1920 ..	−2	−3	+3	−15	−6	+12	+5	+5	−13	−7	+9	+3	−2	+1	−1
(4) Derived from a single tabulated reading at 0 hour of the first day of each month.															
1916 ..	+3	0	−9	−10	−5	+1	+9	0	−7	+1	−1	+3	−2	−1	−1
1917 ..	−7	−1	+1	+1	0	+3	−17	0	+14	−3	+7	+7	0	+1	0
1918 ..	−10	−5	+9	−7	−4	+7	−1	−1	−1	−7	−5	+4	−1	−2	−2
1919 ..	−1	+2	+7	−1	−1	+1	+3	+1	−1	−6	−5	+9	'0	+1	+1
1920 ..	+7	−3	−5	−7	−2	+7	+8	0	−14	−1	+9	+1	−1	+1	0

TABLE XIX.—*Showing the progressive change per day of the Declination Magnetograph as derived by different processes.*

Unity = 0·01 Minute of arc,

Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	April to September.	October to March.	Year.
(1) Derived from the monthly means of the tabulated ordinates.															
1916 ..	+1	+1	−1	−3	−2	−1	+1	+1	0	−1	−1	(−1)	−1	0	0
1917 ..	(−1)	−1	−2	−3	−3	−1	+1	−1	−1	−1	−1	−1	−1	−1	−1
1918 ..	0	−1	−3	−3	−1	−1	0	0	−1	−2	−1	0	−1	−1	−1
1919 ..	0	0	−1	−3	−3	−2	−1	0	−1	−3	−2	−1	−2	−1	−1
1920 ..	−1	+1	−1	−4	−3	−1	−1	0	0	−1	−1	−1	−1	−1	−1
(2) Derived from the differences in the daily means of the first and the last day of each month.															
1916 ..	−2	−3	−2	+4	+2	+1	+3	−1	0	0	−1	+2	+1	−1	0
1917 ..	0	0	+4	+3	+2	+1	−2	+2	+1	+1	+1	+1	+1	+1	+1
1918 ..	−2	−1	+5	+1	+2	+1	−2	−2	+4	0	+1	+2	+1	+1	+1
1919 ..	+1	−2	+1	+4	+1	+3	−2	0	+1	+3	+3	+2	+1	+1	+1
1920 ..	−1	0	+2	+5	+1	+1	+1	0	−3	+3	+3	+1	+1	+1	+1
(3) Derived from a single tabulated reading at 10 hour of the first day of each month.															
1916 ..	−1	+3	+5	−3	−7	−1	0	−1	−1	0	+1	−3	−2	+1	−1
1917 ..	+6	+3	−5	−6	−3	+1	+1	+1	−3	−1	−1	−3	−1	0	−1
1918 ..	+3	−8	+5	−6	+3	−5	−2	−3	+4	−4	−1	+1	−1	−1	−1
1919 ..	+1	0	+3	−3	−5	−1	+1	0	−1	+2	−5	−5	−1	−1	−1
1920 ..	+1	+1	−1	−6	−3	−2	−5	+1	+3	+2	−1	−6	−2	−1	−1
(4) Derived from a single tabulated reading at 0 hour of the first day of each month.															
1916 ..	+1	+1	+1	−1	−3	−3	−1	+1	+2	−1	−2	−2	−1	0	−1
1917 ..	+1	0	−3	−3	−1	−2	0	+1	−1	0	0	−1	−1	0	−1
1918 ..	+2	+1	−5	−3	−1	−3	−1	+2	0	−2	−1	−1	−1	−1	−1
1919 ..	−1	0	0	−2	−3	−2	−1	+1	0	−1	−1	−2	−1	−1	−1
1920 ..	−1	+1	−1	−3	−3	−3	−1	−1	+1	−1	−3	−1	−2	−1	−1

Owing to shift of zero in the D. Magnetograph values in brackets had to be interpolated.

TABLE XX.—*Showing the progressive change per day of the Vertical Force Magnetograph as derived by different processes.*

Unity=0·1γ=0·000001 C. G. S.

Years.	January.	Febrtiary.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	April to September.	October to March.	Year.
(1) Derived from the monthly means of the tabulated ordinates.															
1916 ..	−3	+1	+9	+15	+7	−3	−6	−1	+5	+7	+8	−1	+3	+3	+3
1917 ..	−4	+5	+9	(+6)	(+3)	(0)	−3	+3	+4	+11	+5	−1	+2	+4	+3
1918 ..	+3	+5	+5	+13	+9	−1	0	+5	+9	(+6)	(+2)	(−1)	+6	+3	+5
1919 ..	−4	+3	+7	+14	+10	−4	−8	−3	+7	+9	+4	−1	+3	+3	+3
1920 ..	−5	(−2)	(+1)	(+4)	+7	−4	−2	+9	+15	+11	+1	−5	+5	0	+3
(2) Derived from the differences in the daily means of the first and the last day of each month.															
1916 ..	+9	−1	−17	−11	−15	+12	+2	0	−5	−5	−9	−1	−3	−4	−3
1917 ..	+12	−20	−1	−10	(+1)	+12	−2	−2	−11	+18	−1	+7	−2	+3	0
1918 ..	+6	−7	−14	−6	−19	+7	−2	+2	−14	−21	(−7)	+7	−5	−6	−6
1919 ..	−2	−1	−5	−15	−24	+17	+7	+10	−19	−16	+8	−5	−4	−3	−4
1920 ..	+12	−4	(−19)	−34	−11	+15	−1	−10	−12	−18	+3	+12	−9	−2	−6
(3) Derived from a single tabulated reading at 10 hour of the first day of each month.															
1916 ..	−9	+1	+9	+9	+9	+5	−5	−7	+3	+9	+9	+3	+2	+4	+3
1917 ..	−6	+3	+7	+2	(−2)	(−5)	−9	−5	+7	+17	+15	+1	−2	+6	+2
1918 ..	−8	−3	+7	+9	+13	+7	−1	0	+7	+17	(+9)	(+1)	+6	+4	+5
1919 ..	−7	+1	+7	+5	+20	+9	−13	−11	+4	+17	+5	−1	+2	+4	+3
1920 ..	−7	−3	(+6)	(+16)	+25	−5	−9	+3	+12	+23	+9	−7	+7	+3	+5
(4) Derived from a single tabulated reading at 0 hour of the first day of each month.															
1916 ..	−10	−3	+11	+15	+11	0	−5	−1	+3	+5	+5	+5	+4	+3	+3
1917 ..	−4	+2	+8	+5	(+2)	(−2)	−5	+1	+4	+14	+9	−4	+1	+4	+2
1918 ..	−7	+1	+11	+11	+15	+6	−2	+2	−7	+1	(−1)	(−3)	+4	0	+2
1919 ..	−5	+3	+7	+9	+19	+4	−11	−9	+4	+15	+1	−3	+3	+3	+3
1920 ..	−5	−5	(+5)	(+14)	+24	−1	−8	+5	+12	+15	+8	−7	+8	+2	+5

Owing to adjustments of the V. F. Magnatograph values in brackets had to be interpolated.

APPENDIX.

ABSOLUTE VALUES AND THE DIURNAL INEQUALITIES OF HORIZONTAL FORCE, DECLINATION AND VERTICAL FORCE, AS DERIVED FROM QUIET DAYS FOR THE YEARS 1916 TO 1920.

The usual process for obtaining the absolute values and diurnal inequalities from *all* (unrestricted) days of the year has been continued and the results have already been given in this volume in the magnetic data. The following tables which contain similar results completed to 1920 on the other hand have been derived from quiet days, on lines adopted in the "Colaba Magnetic Data (1846 to 1905)" Part II, Chapter XI.

Tables I, II and III give the mean monthly absolute values of H, D and V, derived (1) from *all* days (2) from quiet days selected by the International Commission of Terrestrial Magnetism and (3) their differences. It will be seen from the results that the conclusions drawn in the "Colaba Magnetic Data" continue all more or less to be confirmed by the present data. At Alibag as at Colaba quiet conditions usually connote high values of Horizontal Force, and low values of Vertical Force and Easterly Declination. Larger differences between the all-day and quiet day results were found in the case of the vertical force in the earlier years at Alibag than those recorded in the Colaba Magnetic Data and these differences were also found to be somewhat irregular. This was due to the different method of manipulation of the Adie V. F. Magnetograph in operation at Colaba previous to 1906 and the Watson's V. F. magnetograph at Alibag after its installation in 1904. In the Colaba instrument the magnet was never disturbed from its position of rest, while in the Alibag Magnetograph, the magnet is daily raised and lowered in position before the record is started. The latter procedure while conducing to better conditions for securing variations, is fatal to the correct registration of absolute values of force due to the failure of the balance to regain after the operation, its original position of rest resulting in a displacement of the base line. This and other considerations, have resulted in altering the usual method of observation of inclination at Alibag from 1911. While retaining the routine of absolute observations twice in the week of H and D which were found sufficient in number to ensure accurate daily values of these two elements, for the element V *daily* observations with the Inductor were found essential and have been introduced since. This allows the values of the base line and thence the absolute values of V to be determined from day to day much more accurately. The adoption of this procedure has led to a considerable diminution of the differences noted above.

Table IV to VI give the results of the diurnal inequalities of H, D and V derived from quiet days selected by the International Commission of Terrestrial Magnetism. All diurnal inequalities published in the present volume have been given uncorrected for the aperiodic change; however the values of the elements for the initial and the terminal hours have been given to allow of the corrections to be determined and applied, if wanted. It must be noted that for quiet days selected by the International Commission, the days are reckoned from 4 hrs. 51 mins. to 4 hrs. 51 mins. of local time corresponding to the Greenwich civil day 0 hr. to 24 hrs. so as to have the inequalities at this observatory strictly simultaneous with those of different observatories all over the world.

TABLE I.—*Absolute values of Horizontal Force derived from all days, and from quiet days selected by the International Commission of Terrestrial Magnetism, and the differences between the values derived from all days and those of quiet days.*

Years.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
Absolute values :—All days.													
36000γ +	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1916 ..	869·9	879·6	858·5	869·6	866·1	876·9	870·0	862·3	859·9	861·9	863·8	867·5	867·2
1917 ..	854·0	872·1	881·4	879·3	879·5	888·1	884·6	852·4	878·4	876·5	883·5	874·5	875·4
1918 ..	889·7	884·4	884·5	885·3	888·6	896·2	901·1	887·8	878·0	879·7	882·7	871·9	885·8
1919 ..	885·9	890·1	889·7	899·6	891·9	921·4	917·7	894·4	891·7	890·6	911·5	911·6	899·7
1920 ..	919·2	920·1	894·0	901·8	920 3	932·8	933·9	933·4	919·1	921·9	929·2	936·7	921·9
Absolute values : Quiet days selected by the International Commission of Terrestrial Magnetism.													
36000γ +	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1916 ..	872·3	880·3	873·9	885·3	870·7	876·6	872·2	877·6	865·4	872·4	868·8	873·7	874·1
1917 ..	868·0	879·0	892·4	885·0	884·2	894·4	889·7	881·5	894·2	898·0	891·0	881·0	886·5
1918 ..	895·1	899·1	897·3	889·3	903·3	912·7	912·6	893·8	894·9	905·9	899·2	886·7	899·2
1919 ..	901·1	899·9	899·5	916·6	905·5	929·1	927·1	891·8	911·6	917·4	919·4	918·3	911·4
1920 ..	920·2	922·6	915·2	920·8	932·2	936·1	938·0	942·0	930·5	934·8	936·7	946·5	931·3
Differences : Quiet days selected by the International Commission of Terrestrial Magnetism less all-days.													
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1916 ..	+ 2·4	+ 0·7	+15·4	+15·7	+ 4·6	− 0·3	+ 2·2	+15·3	+ 5·5	+10·5	+ 5·0	+ 6·2	+ 6·9
1917 ..	+14·0	+ 6·9	+11·0	+ 5·7	+ 4·7	+ 6·3	+ 5·1	+29·1	+15·8	+21·5	+ 7·5	+ 6·5	+11·2
1918 ..	+ 5·4	+14·7	+12·8	+ 4·0	+14·7	+16·5	+11·5	+ 6·0	+16·9	+26·2	+16·5	+14·8	+13·3
1919 ..	+15·2	+ 9·8	+ 9·8	+17·0	+13·6	+ 7·7	+ 9·4	− 2·6	+19·9	+26·8	+ 7·9	+ 6·7	+11·8
1920 ..	+ 1·0	+ 2·5	+21·2	+19·0	+11·9	+ 3·3	+ 4·1	+ 8·6	+11·4	+12·9	+ 7·5	+ 9·8	+ 9·4

TABLE II.—*Absolute values of Declination derived from all days and from quiet days selected by the International Commission of Terrestrial Magnetism, and the differences between the values derived from all days and from those of quiet days.*

Years.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
Absolute values : All days.													
0°E +	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″
1916 ..	38 35	38 9	38 10	37 53	37 17	36 34	36 33	36 25	35 50	35 39	35 19	34 59	36 47
1917 ..	34 36	34 19	34 16	33 32	33 2	32 28	32 25	32 15	31 38	31 5	30 19	30 14	32 31
1918 ..	29 51	29 57	29 50	29 35	28 49	28 26	28 4	27 43	27 28	27 7	26 53	26 37	28 22
1919 ..	26 21	26 2	26 0	25 33	25 13	24 32	24 10	23 58	23 46	23 12	22 34	22 33	24 29
1920 ..	22 10	21 44	21 58	21 34	20 56	20 18	19 50	19 29	19 11	18 55	18 25	18 25	20 15
Absolute values : Quiet days selected by the International Commission of Terrestrial Magnetism.													
0°E +	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″
1916 ..	38 33	38 11	37 50	37 41	37 17	36 40	36 28	36 1	35 39	35 24	35 20	34 48	36 39
1917 ..	34 26	34 6	34 2	33 29	33 1	32 32	32 18	31 52	31 32	30 43	30 10	30 7	32 21
1918 ..	29 52	29 42	29 38	29 39	28 35	28 4	27 55	27 36	27 12	26 54	26 44	26 28	28 12
1919 ..	26 5	26 3	25 58	25 14	25 17	24 24	24 2	24 10	23 33	22 56	22 40	22 25	24 24
1920 ..	22 10	21 44	21 40	21 24	20 52	20 18	19 38	19 25	19 2	18 31	18 17	18 22	20 7
Differences : Quiet days selected by the International Commission of Terrestrial Magnetism less all days.													
	″	″	″	″	″	″	″	″	″	″	″	″	″
1916 ..	−2	+2	−20	−12	0	+6	−5	−24	−11	−15	+1	−11	−8
1917 ..	−10	−13	−14	−3	−1	+4	−7	−23	−6	−22	−9	−7	−9
1918 ..	+1	−15	−12	+4	−14	−22	−9	−7	−16	−13	−9	−9	−10
1919 ..	−16	+1	−2	−19	+4	−8	−8	+12	−13	−16	+6	−8	−6
1920 ..	0	0	−18	−10	−4	0	−12	−4	−9	−24	−8	−3	−8

TABLE III.—*Absolute values of Vertical Force derived from all days and from quiet days selected by the International Commission of Terrestrial Magnetism, and the differences between the values derived from all days and from those of quiet days.*

Years.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
Absolute values : All days.													
16000γ +	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1916 ..	745·9	750·1	761·7	767·8	779·8	784·8	798·0	798·8	810·4	816·4	827·9	835·7	789·8
1917 ..	844·1	847·2	851·9	861·4	867·6	878·5	892·6	892·8	902·0	899·6	905·5	917·8	880·1
1918 ..	937·5	942·0	937·4	951·4	973·2	980·3	989·7	995·0	995·3	1003·6	1021·5	1021·0	979·0
1919 ..	1026·2	1031·0	1045·6	1045·6	1060·1	1067·8	1073·8	1077·2	1080·9	1091·1	1093·5	1116·9	1067·5
1920 ..	1112·1	1121·8	1128·4	1129·6	1144·1	1146·7	1156·8	1152·6	1163·5	1170·7	1171·0	1170·3	1147·3
Absolute values : Quiet days selected by the International Commission of Terrestrial Magnetism.													
16000γ +	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1916 ..	744·8	751·0	759·8	767·2	778·3	785·6	798·2	804·0	811·1	818·1	823·5	838·2	790·0
1917 ..	844·2	848·8	843·4	867·2	866·7	873·0	889·8	896·9	902·1	898·0	904·8	919·9	879·6
1918 ..	935·8	937·7	944·3	951·1	969·8	976·4	990·2	999·8	1001·7	1001·0	1007·1	1023·9	978·2
1919 ..	1024·0	1033·7	1041·7	1050·0	1064·5	1070·4	1067·4	1078·0	1080·9	1095·8	1091·9	1117·1	1067·9
1920 ..	1114·7	1124·7	1122·7	1129·9	1141·6	1149·5	1160·0	1151·0	1165·2	1168·3	1169·1	1178·1	1147·9
Differences : Quiet days selected by the International Commission of Terrestrial Magnetism less all days.													
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1916 ..	−1·3	+0·9	−1·9	−0·6	−1·5	+0·8	+0·2	+5·2	+0·7	+1·7	−4·4	+2·5	−0·2
1917 ..	+0·1	+1·6	−8·5	+5·8	−0·9	−5·5	−2·8	+4·1	+0·1	−1·6	−0·7	+2·1	−0·5
1918 ..	−1·7	−4·3	+6·9	−0·3	−3·4	−3·9	+0·5	+4·8	+6·4	−2·6	−14·4	+2·9	−0·8
1919 ..	−2·2	+2·7	−3·9	+4·4	+4·4	+2·6	−6·4	+0·8	0·0	+4·7	−1·6	+0·2	+0·4
1920 ..	+2·6	+2·9	−5·7	+0·3	−2·5	+2·8	+3·2	−1·6	+1·7	−2·4	−1·9	+7·8	+0·6

TABLE IV*a*.—*Showing for the quiet days selected by the International Commission of Terrestrial Magnetism, the mean diurnal inequality of Horizontal Force for each month of the year and for the whole year 1916.*

Unity = 0·1γ = 0·000001 C.G.S.

1916. Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
4 51	−20	−113	−163	−208	−124	−138	−114	−161	− 94	−162	− 71	− 39	−117
5 51	−10	−100	−165	−199	−106	−108	− 95	−151	−118	−149	− 72	− 47	−110
6 51	−10	− 81	−116	−120	− 75	− 31	− 32	− 90	−172	−105	− 18	+ 14	− 70
7 51	−17	− 2	+11	− 2	− 21	+ 64	+ 67	+ 14	−160	+ 7	+ 64	+ 62	+ 7
8 51	− 25	+101	+169	+182	+ 91	+193	+138	+156	− 19	+177	+122	+ 53	+111
9 51	+15	+179	+290	+363	+182	+262	+237	+260	+151	+321	+173	+ 94	+211
10 51	+100	+219	+379	+446	+293	+343	+318	+301	+237	+417	+227	+155	+286
11 51	+ 83	+260	+383	+425	+293	+346	+331	+301	+249	+439	+212	+134	+288
12 51	+54	+216	+321	+337	+203	+308	+279	+232	+206	+356	+156	+116	+232
13 51	+ 9	+123	+190	+216	+116	+218	+162	+155	+117	+222	+ 77	+ 56	+139
14 51	+ 1	+ 37	+ 92	+ 87	+ 51	+102	+ 40	+ 63	+ 37	+ 88	+ 18	− 4	+ 51
15 51	+ 2	− 9	+ 6	− 13	+ 28	− 35	− 47	− 20	− 6	− 23	− 23	− 40	− 15
16 51	− 4	− 38	− 62	− 78	− 24	− 123	− 112	− 97	− 33	− 101	− 33	− 52	− 63
17 51	− 3	− 51	− 107	− 89	− 42	− 151	− 126	− 117	− 15	− 146	− 26	− 55	− 77
18 51	− 3	− 73	− 115	− 111	− 79	− 182	− 120	− 111	− 28	− 146	− 66	− 47	− 90
19 51	− 15	− 107	− 121	− 130	− 89	− 170	− 125	− 120	− 53	− 170	− 75	− 60	− 103
20 51	− 28	− 113	− 138	− 158	− 96	− 153	− 125	− 114	− 62	− 187	− 81	− 58	− 109
21 51	− 35	− 114	− 157	− 151	− 78	− 133	− 104	− 99	− 56	− 175	− 100	− 67	− 106
22 51	− 21	− 92	− 163	− 157	− 87	− 121	− 118	− 88	− 44	− 144	− 100	− 53	− 99
23 51	− 30	− 75	− 151	− 152	− 91	− 111	− 118	− 89	− 35	− 130	− 87	− 34	− 92
0 51	− 30	− 60	− 122	− 148	− 80	− 109	− 99	− 79	− 30	− 90	− 67	− 57	− 81
1 51	− 12	− 68	− 115	− 146	− 92	− 95	− 97	− 78	− 28	− 103	− 101	− 45	− 82
2 51	− 16	− 39	− 106	− 125	− 81	− 100	− 90	− 70	− 26	− 112	− 66	− 21	− 71
3 51	− 3	− 45	− 78	− 117	− 94	− 99	− 77	− 59	− 43	− 117	− 75	− 24	− 69
4 51	+17	− 34	− 100	− 104	− 114	− 99	− 61	− 50	− 40	− 110	− 51	− 6	− 63
Range ..	135	374	548	654	417	528	457	462	421	626	328	222	405

TABLE IV*b*.—*Showing for the quiet days selected by the International Commission of Terrestrial Magnetism, the mean diurnal inequality of Horizontal Force for each month of the year and for the whole year 1917.*

Unity = 0·1γ = 0·000001 C.G.S.

1917. Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
4 51	− 64	−141	−188	−230	−128	−194	−196	−226	−230	−163	−142	− 98	−167
5 51	− 57	−124	−167	−212	−127	−180	−189	−227	−220	−150	−118	− 77	−154
6 51	− 63	− 83	−117	−177	− 77	− 99	−126	−204	−191	−126	− 31	− 16	−109
7 51	− 47	− 7	− 7	− 68	+ 27	+ 17	+ 22	− 94	−116	− 10	+ 74	+ 80	− 11
8 51	+ 11	+ 69	+171	+116	+173	+156	+192	+ 94	+ 85	+180	+186	+167	+133
9 51	+ 37	+171	+347	+324	+266	+268	+367	+286	+295	+369	+280	+253	+272
10 51	+105	+251	+446	+403	+324	+355	+472	+415	+405	+482	+332	+310	+358
11 51	+140	+289	+433	+416	+333	+391	+485	+451	+466	+484	+320	+315	+377
12 51	+122	+289	+367	+354	+311	+358	+420	+414	+432	+368	+231	+246	+326
13 51	+ 94	+206	+264	+239	+244	+275	+311	+304	+334	+207	+109	+163	+229
14 51	+ 19	+125	+122	+113	+136	+162	+147	+195	+216	+112	+ 54	+ 53	+121
15 51	0	+ 34	− 19	+ 24	+ 21	+ 42	− 17	+ 71	+100	+ 32	− 15	− 39	+ 19
16 51	− 15	− 29	− 73	− 48	− 68	− 47	−117	− 38	+ 25	− 5	− 70	− 80	− 47
17 51	− 22	− 40	− 91	− 71	−102	−104	−139	−101	− 34	− 41	− 59	−107	− 76
18 51	− 14	− 61	−134	− 95	−114	−138	−128	−104	− 94	−103	− 72	−105	− 97
19 51	− 19	− 87	−145	−115	−123	−143	−153	−130	−107	−160	−117	−156	−121
20 51	− 28	−136	−171	−144	−130	−148	−161	−151	−165	−217	−154	−182	−149
21 51	− 54	−125	−168	−141	−152	−150	−172	−161	−170	−221	−150	−162	−152
22 51	− 54	−105	−153	−134	−149	−151	−175	−148	−174	−202	−130	−109	−140
23 51	− 39	−117	−153	−118	−153	−153	−180	−151	−186	−176	−118	− 98	−137
0 51	− 30	− 95	−146	−116	−155	−154	−177	−156	−169	−171	−111	− 86	−131
1 51	− 18	−111	−152	−129	−123	−142	−177	−141	−179	−180	−121	− 95	−131
2 51	− 24	− 99	−150	−128	−121	−131	−169	−127	−183	−169	−107	−104	−126
3 51	− 22	−101	−141	−121	−121	−126	−164	−124	−174	−151	− 95	− 90	−119
4 51	+ 7	− 83	−151	−115	−111	−124	−155	−130	−158	−144	− 85	− 62	−109
Range ..	204	430	634	646	488	585	681	678	696	705	486	497	544

TABLE IVc.—*Showing for the quiet days selected by the International Commission of the Terrestrial Magnetism, the mean diurnal inequality of Horizontal Force for each month of the year and for the whole year 1918.*

Unity = 0·1γ = 0·000001 C.G.S.

1918. Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
4 51	− 74	−153	−164	−220	−178	−151	−143	−169	−122	−194	−124	−106	−150
5 51	− 68	−125	−151	−212	−156	−124	−116	−163	−138	−169	−108	− 97	−136
6 51	− 22	− 66	−117	−165	− 56	− 77	− 39	−146	−169	−137	− 39	− 55	− 91
7 51	+ 47	+ 37	− 11	− 78	+ 74	+ 36	+ 46	− 85	−127	− 19	+ 38	+ 13	− 2
8 51	+129	+177	+130	+118	+234	+167	+160	+ 66	+ 30	+159	+153	+ 56	+132
9 51	+212	+286	+259	+309	+336	+296	+233	+192	+213	+317	+255	+115	+252
10 51	+265	+325	+374	+428	+397	+374	+278	+289	+286	+430	+324	+161	+328
11 51	+270	+354	+376	+442	+369	+366	+296	+320	+303	+478	+313	+182	+339
12 51	+126	+301	+320	+354	+320	+349	+294	+303	+255	+339	+244	+136	+278
13 51	+135	+191	+219	+220	+220	+253	+201	+226	+176	+186	+145	+ 74	+187
14 51	+ 37	+ 86	+100	+115	+101	+137	+114	+117	+102	+ 95	+ 81	+ 22	+ 92
15 51	− 53	− 18	+ 6	+ 37	+ 19	+ 22	+ 7	+ 33	+ 45	+ 37	+ 5	+ 5	+ 11
16 51	− 86	− 71	− 46	− 63	− 74	− 48	− 79	− 26	− 8	− 14	− 37	− 66	− 51
17 51	− 80	− 82	− 70	−118	−143	− 94	− 97	− 60	− 58	− 80	− 79	− 74	− 86
18 51	− 78	− 85	−111	−135	−166	−135	−134	− 90	− 97	− 95	− 82	− 59	−106
19 51	− 63	−138	−134	−136	−149	−136	−140	− 88	−102	−140	−127	− 73	−119
20 51	− 86	−161	−152	−141	−177	−147	−149	−107	−124	−175	−142	− 87	−137
21 51	−115	−157	−151	−131	−172	−153	−151	−116	−129	−175	−147	− 78	−140
22 51	− 99	−143	−143	−123	−159	−143	−140	−122	− 71	−165	−138	− 49	−125
23 51	− 93	−140	−145	−133	−136	−143	−126	− 96	− 67	−138	−120	− 31	−114
0 51	− 84	−124	−130	−112	−143	−145	−106	− 79	− 63	−152	−120	− 32	−107
1 51	− 81	−116	−102	−108	−136	−159	− 94	− 91	− 48	−145	−109	− 19	−101
2 51	− 89	−104	−101	− 91	−129	−170	− 77	− 90	− 62	−138	−112	0	− 97
3 51	− 64	−100	− 99	−111	−116	−169	− 75	− 74	− 57	−136	− 94	+ 8	− 91
4 51	− 44	− 88	− 86	−109	−134	−161	− 71	− 62	− 58	−121	− 73	+ 20	− 82
Range ..	385	515	540	662	575	544	447	489	472	672	471	288	489

TABLE IVd.—*Showing for the quiet days selected by the International Commission of Terrestrial Magnetism, the mean diurnal inequality of Horizontal Force for each month of the year and for the whole year 1919.*

Unity = 0·1γ = 0·000001 C.G.S.

1919. Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
4 51	− 83	−156	−149	−192	−172	−200	−195	−233	−173	−123	−152	−136	−164
5 51	− 67	−146	−134	−167	−166	−178	−180	−236	−153	− 88	−133	−110	−147
6 51	− 37	−113	− 97	−140	−112	−102	−113	−190	−150	− 43	− 57	− 39	− 99
7 51	− 12	− 17	− 17	− 19	+ 27	+ 15	+ 1	− 87	− 88	+ 69	+ 61	+ 42	− 2
8 51	+ 43	+105	+133	+165	+174	+151	+149	+102	+ 61	+209	+185	+ 97	+131
9 51	+119	+229	+273	+328	+290	+305	+325	+250	+215	+345	+278	+184	+262
10 51	+197	+306	+348	+424	+344	+381	+430	+339	+284	+376	+338	+232	+333
11 51	+229	+340	+372	+402	+305	+390	+425	+302	+289	+372	+322	+238	+332
12 51	+194	+280	+311	+327	+245	+337	+391	+308	+245	+261	+205	+175	+273
13 51	+109	+183	+185	+207	+165	+235	+303	+234	+160	+134	+124	+101	+178
14 51	+ 60	+ 73	+ 80	+119	+ 72	+115	+170	+151	+ 92	+ 21	+ 49	+ 38	+ 87
15 51	− 8	− 39	− 22	+ 46	+ 10	− 20	+ 27	+ 46	+ 21	− 50	− 10	+ 13	+ 1
16 51	− 55	− 73	− 36	− 21	− 35	−106	− 67	− 48	− 18	− 92	− 68	− 43	− 55
17 51	− 69	− 68	− 43	− 71	−103	−128	−141	− 95	− 41	−111	− 94	− 69	− 86
18 51	− 64	− 53	− 63	−112	−135	−146	−173	−126	− 70	−128	− 99	− 95	−105
19 51	− 71	− 73	− 97	−146	−123	−157	−183	−129	− 98	−146	−112	−113	−121
20 51	− 90	−113	−164	−155	−125	−149	−173	−108	−123	−166	−123	− 97	−132
21 51	− 68	−132	−165	−153	−133	−137	−163	−106	− 88	−168	−131	−110	−129
22 51	− 68	−124	−148	−151	−120	−124	−157	−101	− 87	−172	−115	− 94	−122
23 51	− 63	−108	−125	−166	−113	−120	−149	− 71	− 77	−144	−129	− 81	−112
0 51	− 65	− 90	−132	−139	−100	−121	−147	− 65	− 73	−137	−106	− 66	−103
1 51	− 62	− 97	−131	−149	− 98	−100	−152	− 81	− 64	− 93	−104	− 45	− 98
2 51	− 60	− 89	−108	−144	− 78	−100	−140	− 78	− 76	− 75	− 92	− 45	− 90
3 51	− 39	− 73	−102	−131	− 75	− 99	−125	− 68	− 44	− 78	− 83	− 40	− 80
4 51	− 18	− 66	− 80	−120	− 62	− 94	−112	− 47	− 63	− 66	− 68	− 18	− 68
Range	319	496	537	616	516	590	625	575	462	548	490	374	497

TABLE IVe.—*Showing for the quiet days selected by the International Commission of Terrestrial Magnetism, the mean diurnal inequality of Horizontal Force for each month of the year, and for the whole year 1920.*

Unity = 0·1 γ = 0·000001 C.G.S.

1920. Bombay Civil Time.	Month. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
4 51	− 28	− 65	−176	−141	−144	113	−143	− 95	− 44	− 86	−103	−107	−104
5 51	− 27	− 36	−165	−127	−118	− 85	−117	− 86	− 70	− 89	− 71	− 90	− 90
6 51	− 3	− 17	− 92	− 87	− 74	42	− 45	− 66	−115	− 73	− 38	− 39	− 58
7 51	+ 38	+ 37	+ 1	− 14	+ 31	+ 44	+ 32	− 37	−109	+ 9	+ 44	+ 9	+ 7
8 51	+ 58	+128	+148	+146	+163	+166	+119	+ 51	+ 60	+128	+136	+ 60	+114
9 51	+ 98	+195	+315	+325	+285	+297	+229	+141	+198	+245	+193	+154	+223
10 51	+147	+225	+405	+395	+353	+357	+286	+202	+268	+318	+249	+221	+283
11 51	+148	+215	+408	+381	+350	+343	+286	+216	+291	+342	+223	+203	+284
12 51	+107	+145	+342	+310	+267	+249	+240	+192	+223	+248	+131	+165	+218
13 51	+ 81	+ 68	+197	+190	+158	+149	+158	+130	+163	+130	+ 29	+109	+130
14 51	+ 45	+ 14	+ 65	+ 75	+ 85	+ 45	+ 54	+ 90	+ 67	+ 26	− 33	+ 74	+ 51
15 51	0	+ 2	− 11	− 21	+ 22	− 29	− 50	+ 32	− 2	− 38	− 65	+ 40	− 10
16 51	− 25	− 9	− 56	− 82	− 56	− 99	−127	− 19	− 63	− 84	−104	− 14	− 61
17 51	− 32	− 11	− 85	−101	− 91	−142	−122	− 57	− 84	− 77	− 76	− 60	− 78
18 51	− 59	− 33	−113	−136	−115	−146	−105	− 60	−100	− 94	− 67	− 56	− 90
19 51	− 60	− 63	−118	−149	−137	−147	− 99	− 70	−107	−111	− 72	− 73	−103
20 51	− 75	−105	−148	−166	−142	−139	− 97	− 71	−106	−131	− 64	− 80	−110
21 51	− 73	−126	−149	−160	−133	−122	− 93	− 85	−108	−129	− 59	− 67	−109
22 51	− 67	−120	−165	−153	−133	−110	− 83	− 72	− 87	−113	− 67	− 99	−106
23 51	− 71	−116	−144	−141	−130	−108	− 88	− 65	− 78	− 99	− 60	−105	−100
0 51	− 67	− 90	−126	−132	−120	−116	− 79	− 67	− 69	− 90	− 44	−107	− 92
1 51	− 61	− 83	−128	−102	−121	−110	− 70	− 81	− 73	− 88	− 34	− 82	− 86
2 51	− 45	− 82	−134	− 74	−117	− 88	− 68	− 78	− 39	− 80	− 36	− 58	− 75
3 51	− 30	− 72	−110	− 67	−106	− 74	− 63	− 65	− 30	− 72	− 46	− 41	− 65
4 51	− 16	− 61	− 93	− 72	−107	− 66	− 59	− 45	− 22	− 63	− 37	− 18	− 55
Range ..	223	351	584	561	497	504	429	311	406	473	353	328	394

TABLE IVf.—*Showing for the quiet days selected by the International Commission of Terrestrial Magnetism, the mean diurnal inequality of Horizontal Force for summer months (April to September), winter months (October to March), and the whole year for each of the years 1916 to 1920.*

Unity = 0·1 γ = 0·000001 C.G.S.

— Bombay Civil Time.	1916. April to September.	1916. October to March.	1916. Year.	1917. April to September.	1917. October to March.	1917. Year.	1918. April to September.	1918. October to March.	1918. Year.	1919. April to September.	1919. October to March.	1919. Year.	1920. April to September.	1920. October to March.	1920. Year.
H. m.															
4 51	−140	− 95	−117	−201	−133	−167	−164	−136	−150	−194	−133	−164	−113	− 94	−104
5 51	−129	− 91	−110	−193	−115	−154	−151	−120	−136	−180	−113	−147	−101	− 80	− 90
6 51	− 87	− 53	− 70	−146	− 73	−109	−109	− 73	− 91	−135	− 64	− 99	− 71	− 44	− 58
7 51	− 6	+ 21	+ 7	− 35	+ 14	− 11	− 22	+ 17	− 2	− 25	+ 21	− 2	− 9	+ 23	+ 7
8 51	+123	+ 99	+111	+136	+131	+133	+129	+134	+132	+134	+129	+131	+117	+110	+114
9 51	+243	+179	+211	+301	+243	+272	+263	+240	+252	+285	+238	+262	+245	+200	+223
10 51	+323	+249	+286	+396	+321	+358	+342	+313	+328	+367	+299	+333	+305	+261	+285
11 51	+324	+252	+288	+424	+330	+377	+349	+329	+339	+352	+312	+332	+311	+256	+284
12 51	+261	+203	+232	+381	+270	+326	+313	+244	+278	+309	+238	+273	+247	+190	+218
13 51	+164	+114	+139	+285	+174	+229	+216	+158	+187	+217	+139	+178	+158	+102	+130
14 51	+ 63	+ 39	+ 51	+161	+ 81	+121	+114	+ 70	+ 92	+120	+ 53	+ 87	+ 69	+ 32	+ 51
15 51	− 15	− 15	− 15	+ 40	− 1	+ 19	+ 27	− 5	+ 11	+ 22	19	+ 1	− 8	− 12	− 10
16 51	− 78	− 48	− 63	− 49	− 45	− 47	− 50	− 53	− 51	− 49	− 61	− 55	− 74	− 49	− 61
17 51	− 90	− 65	− 77	− 92	− 60	− 76	− 95	− 77	− 86	− 97	− 76	− 86	− 99	− 57	− 78
18 51	−105	− 75	− 90	−112	− 81	− 97	−126	− 85	−106	−127	− 84	−105	−110	− 70	− 90
19 51	−115	− 91	−103	−129	−114	−121	−125	−112	−119	−139	−102	−121	−118	− 83	−101
20 51	−118	−101	−109	−150	−148	−149	−141	−133	−137	−139	−125	−132	−120	−101	−110
21 51	−103	−108	−106	−158	−147	−152	−142	−137	−140	−130	−129	−129	−117	−101	−109
22 51	−103	− 95	− 99	−155	−125	−140	−126	−123	−125	−128	−120	−122	−106	−105	−106
23 51	− 99	− 85	− 92	−157	−117	−137	−117	−111	−114	−116	−108	−112	−102	− 99	−100
0 51	− 91	− 71	− 81	−155	−107	−131	−108	−107	−107	−107	− 99	−103	− 97	− 87	− 92
1 51	− 89	− 75	− 82	−149	−113	−131	−106	− 95	−101	−107	− 89	− 98	− 93	− 79	− 86
2 51	− 82	− 60	− 71	−143	−109	−126	−103	− 91	− 97	−103	− 78	− 90	− 77	− 73	− 75
3 51	− 81	− 57	− 69	−138	−100	−119	−100	− 81	− 91	− 90	− 69	− 80	− 67	− 62	− 65
4 51	− 78	− 47	− 63	−132	− 86	−109	− 99	− 65	− 82	− 83	− 53	− 68	− 62	− 48	− 55
Range ..	464	360	405	625	478	544	513	466	489	561	445	497	431	366	394

TABLE Va.—*Showing for the quiet days seletecd by the International Commission of Terrestrial Magnetism, the mean diurnal inequality of Declination for each month of the year, and for the whole year 1916.*

Unity = 0·01 minute of arc.

1916.	Month.												
Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
4 51	− 51	− 19	+ 12	+ 14	+ 40	+ 30	+ 47	+ 73	+ 50	− 15	− 6	− 44	+ 11
5 51	− 49	− 39	+ 14	+ 36	+149	+157	+167	+199	+131	− 11	− 22	− 53	+ 57
6 51	− 9	− 60	+ 38	+148	+253	+227	+259	+311	+284	+ 46	− 50	− 77	+114
7 51	+ 97	− 19	+ 96	+236	+246	+251	+268	+302	+316	+117	− 19	− 12	+157
8 51	+209	+ 54	+123	+233	+171	+184	+176	+160	+178	+104	+ 2	+ 56	+137
9 51	+149	+ 80	+ 93	+161	− 3	+ 68	− 16	− 42	− 23	+ 42	+ 12	+ 48	+ 47
10 51	+ 10	+ 67	− 8	− 8	−125	− 91	−156	−229	−225	− 64	− 40	− 28	− 75
11 51	− 91	− 9	−113	−190	−228	−227	−276	−318	−374	−156	− 44	− 49	−173
12 51	−112	− 31	−177	−247	−255	−261	−290	−334	−358	−155	− 10	− 4	−186
13 51	− 83	− 37	−164	−210	−194	−210	−226	−264	−218	−100	+ 23	+ 47	−136
14 51	− 33	− 31	− 67	−132	−100	−142	−136	−154	− 63	− 1	+ 14	+ 51	− 66
15 51	+ 9	− 10	+ 27	− 49	+ 5	− 51	− 38	− 34	+ 56	+ 52	+ 16	+ 7	− 1
16 51	+ 15	− 7	+ 64	+ 11	+ 50	+ 17	+ 42	+ 65	+ 95	+ 49	− 12	− 5	+ 32
17 51	− 11	− 7	+ 36	0	+ 35	+ 32	+ 77	+ 69	+ 25	+ 22	− 17	+ 2	+ 22
18 51	+ 2	+ 2	+ 4	− 17	− 15	− 8	+ 39	+ 8	+ 1	+ 13	+ 3	+ 23	+ 5
19 51	+ 11	+ 5	+ 1	− 28	− 32	− 12	− 9	− 3	+ 5	+ 7	0	+ 17	− 3
20 51	+ 6	+ 9	+ 7	− 23	− 31	− 16	− 11	− 9	+ 3	+ 7	− 8	+ 15	− 4
21 51	+ 1	+ 6	+ 2	− 17	− 8	− 14	− 4	− 1	+ 4	− 3	+ 5	+ 12	− 1
22 51	− 2	+ 8	+ 5	− 9	− 1	− 3	+ 3	+ 6	+ 14	+ 10	+ 25	+ 15	+ 6
23 51	− 1	+ 17	+ 8	+ 16	+ 1	+ 1	+ 17	+ 20	+ 12	+ 12	+ 35	+ 10	+ 12
0 51	− 6	+ 16	+ 7	+ 28	+ 5	+ 16	+ 7	+ 26	+ 16	+ 12	+ 45	+ 9	+ 15
1 51	− 12	+ 11	+ 4	+ 19	+ 9	+ 15	+ 21	+ 38	+ 28	+ 9	+ 30	− 4	+ 14
2 51	− 22	+ 2	0	+ 16	+ 15	+ 14	+ 13	+ 47	+ 29	+ 3	+ 15	− 15	+ 10
3 51	− 32	− 16	− 2	+ 13	+ 10	+ 14	+ 20	+ 58	+ 30	− 7	+ 1	− 27	+ 5
4 51	− 42	− 28	− 3	+ 2	+ 31	+ 36	+ 38	+ 87	+ 42	− 15	− 8	− 50	+ 7
Range ..	321	140	300	483	508	512	558	645	690	273	95	133	343

TABLE Vb.—*Showing for the quiet days selected by the International Commission of Terrestrial Magnetism, the mean diurnal inequality of Declination for each month of the year, and for the whole year 1917.*

Unity = 0·01 minute of arc.

1917.	Month.												
Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
4 51	− 3	− 22	− 8	+ 1	+ 19	+ 60	+ 46	+ 77	+ 26	− 15	− 9	− 33	+ 12
5 51	− 2	− 42	+ 2	+ 59	+ 82	+160	+134	+168	+104	+ 5	− 21	− 49	+ 50
6 51	+ 21	− 30	+ 72	+180	+197	+263	+238	+329	+257	+ 68	− 39	− 99	+122
7 51	+117	+ 41	+139	+236	+189	+280	+226	+338	+320	+126	− 37	− 67	+159
8 51	+160	+115	+157	+222	+103	+246	+131	+212	+201	+114	+ 74	+ 3	+145
9 51	+106	+127	+ 93	+147	− 28	+116	+ 13	+ 65	+ 65	+ 57	+ 38	+ 60	+ 72
10 51	− 11	+ 32	− 12	+ 14	−161	− 34	−119	−100	− 98	− 31	− 54	+ 74	− 42
11 51	−101	− 63	−112	−136	−229	−167	−227	−234	−252	− 95	− 90	+ 65	−137
12 51	−122	−125	−152	−195	−190	−254	−264	−279	−277	− 86	− 44	+ 52	−161
13 51	− 64	−118	− 96	−194	−109	−232	−209	−268	−200	− 50	− 16	+ 28	−127
14 51	− 13	−100	− 17	−107	− 33	−163	−114	−200	−118	− 30	− 36	0	− 78
15 51	+ 10	− 57	+ 42	− 28	+ 27	− 93	+ 9	− 80	− 16	− 7	− 39	0	− 19
16 51	− 2	− 5	+ 28	+ 13	+ 70	− 53	+ 79	+ 7	+ 30	− 25	− 27	− 7	+ 9
17 51	− 19	− 3	− 25	0	+ 44	− 28	+ 77	+ 50	− 2	− 77	− 15	− 30	− 2
18 51	+ 22	+ 14	− 24	− 43	− 23	− 44	+ 9	0	− 31	− 24	+ 15	+ 2	− 11
19 51	+ 19	+ 32	− 24	− 43	− 35	− 60	− 27	− 32	− 36	+ 2	+ 25	+ 5	− 15
20 51	− 5	+ 29	− 12	− 39	− 29	− 40	− 31	− 35	− 35	− 9	+ 22	0	− 15
21 51	− 12	+ 29	− 31	− 28	− 8	− 20	− 11	− 19	− 34	− 8	+ 15	− 6	− 11
22 51	+ 5	+ 12	− 13	− 15	− 7	− 9	− 5	− 9	− 5	+ 7	+ 21	+ 1	− 1
23 51	− 5	+ 31	− 1	− 9	+ 5	− 2	− 1	+ 5	+ 20	+ 26	+ 32	+ 14	− 10
0 51	0	+ 24	+ 10	+ 1	+ 23	+ 14	+ 11	+ 8	+ 31	+ 20	+ 39	+ 12	+ 16
1 51	− 13	+ 27	+ 4	+ 4	+ 34	+ 24	+ 12	+ 7	+ 16	+ 26	+ 39	+ 12	+ 16
2 51	− 16	+ 24	− 1	− 10	+ 27	+ 22	+ 20	+ 4	+ 13	+ 11	+ 25	+ 1	+ 10
3 51	− 38	+ 20	− 17	− 24	+ 19	+ 17	+ 10	+ 10	+ 17	+ 3	+ 8	− 20	0
4 51	− 42	− 11	− 21	− 22	+ 34	+ 29	+ 37	+ 31	+ 31	+ 14	− 14	− 50	− 1
Range ..	282	252	309	431	426	534	502	617	597	221	164	173	326

TABLE Vc.—*Showing for the quiet days selected by the International Commission of Terrestrial Magnetism, the mean diurnal inequality of Declination for each month of the year and for the whole year 1918.*

Unity = 0·01 minute of arc.

1918.	Month.												
Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
4 51	− 70	− 20	− 24	+ 14	+ 72	+ 43	+ 44	+ 30	+ 42	− 13	− 17	− 24	+ 6
5 51	− 87	− 25	− 10	+ 49	+171	+127	+126	+119	+ 79	+ 9	− 38	− 16	+ 42
6 51	−118	− 41	+ 74	+185	+249	+221	+220	+254	+258	+113	− 67	− 19	+111
7 51	− 99	+ 13	+149	+260	+254	+240	+225	+273	+335	+180	− 16	+ 36	+154
8 51	− 14	+ 79	+157	+213	+147	+170	+158	+171	+231	+172	− 1	+ 84	+131
9 51	+118	+ 65	+114	+ 90	− 34	+ 61	+ 56	+ 29	+ 58	+ 60	+ 19	+ 32	+ 56
10 51	+166	+ 39	+ 15	− 62	−212	− 98	− 25	−116	−116	− 77	− 54	− 67	− 51
11 51	+139	− 11	− 99	−176	−298	−209	− 80	−211	−247	−171	− 89	−110	−130
12 51	+101	− 38	−131	−194	−288	−238	−157	−228	−273	−176	− 27	− 49	−141
13 51	+ 91	− 14	−110	−117	−182	−207	−155	−193	−207	−125	+ 62	− 23	− 98
14 51	+ 42	+ 15	− 21	− 42	− 63	−133	− 85	−124	−105	− 34	+ 94	+ 38	− 35
15 51	− 44	+ 23	+ 38	+ 5	+ 4	− 42	− 49	− 47	− 23	+ 16	+104	+ 76	+ 5
16 51	− 41	+ 17	+ 26	+ 37	+ 44	− 7	− 16	+ 5	− 10	+ 10	+ 54	+ 59	+ 15
17 51	− 33	− 24	− 16	+ 20	+ 38	+ 11	− 2	+ 29	− 8	− 24	− 11	+ 33	+ 1
18 51	− 10	− 12	− 16	− 47	− 7	+ 1	− 27	+ 7	0	− 8	+ 9	+ 34	− 6
19 51	− 1	− 2	− 17	− 49	− 25	− 42	− 67	− 22	− 7	0	+ 15	+ 36	− 15
20 51	− 15	− 5	− 28	− 47	− 16	− 28	− 60	− 27	− 13	− 6	+ 3	+ 30	− 18
21 51	− 16	− 16	− 30	− 45	− 6	− 14	− 50	− 16	− 11	− 12	− 6	− 1	− 19
22 51	− 23	− 7	− 20	− 36	+ 10	− 3	− 42	− 9	− 7	− 1	+ 6	− 10	− 12
23 51	− 7	− 2	− 8	− 26	+ 15	+ 6	− 26	+ 4	− 3	+ 12	+ 11	− 10	− 3
0 51	− 14	+ 1	− 6	− 5	+ 23	+ 17	− 11	+ 10	+ 1	+ 25	+ 2	− 14	+ 2
1 51	− 14	+ 1	− 5	− 3	+ 29	+ 28	− 2	+ 16	+ 15	+ 19	− 9	− 32	+ 4
2 51	− 17	− 2	− 15	− 4	+ 34	+ 37	+ 7	+ 24	+ 16	+ 14	− 7	− 29	+ 5
3 51	− 35	− 19	− 10	− 4	+ 38	+ 42	+ 24	+ 30	+ 13	+ 1	− 20	− 50	0
4 51	− 64	− 35	− 30	+ 2	+ 66	+ 64	+ 42	+ 35	+ 16	+ 3	− 27	− 46	+ 2
Range ..	284	120	288	454	552	478	382	501	608	356	193	194	295

TABLE Vd.—*Showing for the quiet days selected by the International Commission of Terrestrial Magnetism, the mean diurnal inequality of Declination for each month of the year and for the whole year 1919.*

Unity = 0·01 minute of arc.

1919.	Month.												
Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
4 51	− 28	− 37	− 26	+ 32	+ 29	+ 54	+ 54	+ 83	+ 48	− 17	− 40	− 58	+ 8
5 51	− 33	− 43	− 39	+ 52	+112	+162	+142	+157	+ 97	− 30	− 40	− 77	+ 38
6 51	− 26	− 23	− 8	+123	+238	+268	+217	+267	+219	+ 36	− 42	− 91	+ 98
7 51	+ 65	+104	+ 80	+171	+287	+284	+227	+258	+262	+104	+ 6	− 45	+150
8 51	+135	+189	+149	+173	+224	+170	+177	+168	+188	+ 96	+ 37	+ 44	+146
9 51	+ 97	+137	+152	+ 83	+ 76	+ 19	+ 60	− 5	+ 59	+ 36	+ 27	+ 72	+ 68
10 51	− 22	− 2	+ 95	− 46	− 91	−128	− 68	−144	− 75	− 57	− 23	+ 53	− 42
11 51	− 84	− 89	− 9	−164	−190	−190	−152	−252	−213	−116	− 42	− 1	−125
12 51	− 93	− 73	− 95	−213	−207	−196	−194	−254	−261	− 98	+ 24	− 9	−139
13 51	− 64	− 30	− 69	−173	−137	−157	−173	−196	−214	− 38	+ 62	− 7	−100
14 51	− 50	+ 38	− 32	− 87	− 78	−109	−125	−104	−122	+ 11	+ 48	+ 8	− 50
15 51	− 13	+ 63	+ 24	− 16	− 20	− 78	− 60	− 8	− 27	+ 59	+ 43	+ 35	0
16 51	− 1	+ 48	− 5	− 4	+ 2	− 36	0	+ 40	+ 13	+ 17	+ 28	+ 49	+ 13
17 51	− 3	− 20	− 50	− 16	+ 8	− 3	+ 34	+ 35	+ 3	− 37	− 16	+ 38	− 2
18 51	+ 15	− 35	− 50	− 33	− 38	− 16	− 20	− 13	− 19	− 7	− 1	+ 37	− 15
19 51	+ 32	− 24	− 45	− 21	− 61	− 56	− 66	− 44	− 17	+ 2	+ 3	+ 19	− 23
20 51	+ 28	− 33	− 11	− 23	− 59	− 44	− 62	− 41	− 23	− 15	− 4	+ 14	− 23
21 51	+ 19	− 35	− 16	− 20	− 42	− 33	− 48	− 28	− 12	− 11	− 4	+ 9	− 18
22 51	+ 17	− 25	− 20	+ 5	− 30	− 12	− 24	− 10	+ 2	+ 11	− 2	+ 3	7
23 51	+ 15	− 16	− 12	+ 21	− 12	+ 2	− 4	0	+ 12	+ 17	+ 5	+ 7	+ 3
0 51	+ 13	− 20	+ 5	+ 37	+ 2	+ 16	+ 5	+ 9	+ 29	+ 15	+ 1	+ 1	+ 9
1 51	+ 6	− 19	+ 4	+ 48	+ 5	+ 28	+ 17	+ 28	+ 26	+ 16	− 9	− 22	+ 11
2 51	− 3	− 23	− 5	+ 46	− 4	+ 27	+ 24	+ 31	+ 29	+ 10	− 27	− 25	+ 7
3 51	− 15	− 31	− 14	+ 37	− 4	+ 37	+ 36	+ 34	+ 24	− 9	− 36	− 41	+ 1
4 51	− 26	− 43	− 21	+ 19	+ 1	+ 53	+ 41	+ 53	+ 17	− 13	− 51	− 70	− 3
Range ..	228	278	247	386	494	480	421	521	523	220	113	163	289

TABLE Ve.—*Showing for the quiet days selected by the International Commission of Terrestrial Magnetism, the mean diurnal inequality of Declination for each month of the year and for the whole year 1920.*

Unity = 0·01 minute of arc.

1920. Bombay Civil Time.	Month. January.	February.	March.	April.	May	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
4 51	− 46	− 32	− 6	+ 20	+ 50	+ 71	+ 76	+ 97	+ 20	+ 5	− 9	− 42	+ 17
5 51	− 56	− 51	+ 19	+ 50	+108	+173	+178	+204	+ 83	+ 13	− 7	− 37	+ 56
6 51	− 73	− 57	+ 89	+148	+195	+272	+229	+288	+216	+ 49	+ 15	− 31	+112
7 51	− 21	+ 16	+172	+195	+220	+307	+217	+274	+256	+ 90	+ 45	+ 37	+151
8 51	+ 68	+137	+189	+149	+168	+212	+148	+120	+173	+ 79	+ 25	+ 85	+129
9 51	+135	+169	+116	+ 61	+ 4	+ 20	− 17	− 77	− 8	− 21	− 34	+ 3	+ 29
10 51	+ 88	+122	0	− 73	−130	−155	−173	−219	−157	−106	− 81	− 85	− 81
11 51	− 13	+ 56	− 95	−187	−215	−280	−259	−300	−257	−170	− 75	− 97	−158
12 51	− 30	+ 19	−137	−217	−219	−271	−241	−292	−250	−155	− 36	− 28	−155
13 51	− 50	− 28	−112	−156	−126	−208	−207	−227	−173	− 91	+ 19	+ 14	−112
14 51	− 52	− 89	− 65	− 86	− 40	−147	−112	−118	− 53	− 17	+ 27	+ 63	− 57
15 51	− 33	−110	− 30	− 5	+ 17	− 85	0	− 5	+ 37	+ 34	+ 27	+ 78	− 6
16 51	− 2	− 80	− 19	+ 22	+ 44	− 10	+ 47	+ 54	+ 59	+ 25	+ 5	+ 37	+ 15
17 51	− 2	− 51	− 15	+ 6	+ 19	+ 13	+ 53	+ 49	+ 17	+ 3	− 9	+ 20	+ 9
18 51	+ 17	− 24	− 13	− 15	− 35	− 25	− 1	− 23	− 16	+ 11	+ 9	+ 30	− 7
19 51	+ 32	− 5	− 14	− 25	− 53	− 26	− 32	− 30	− 16	+ 13	+ 10	+ 19	− 11
20 51	+ 24	− 5	− 15	− 25	− 41	− 19	− 31	− 23	− 6	+ 14	+ 2	+ 4	− 10
21 51	+ 24	+ 1	− 8	− 7	− 27	− 6	− 17	− 8	− 7	+ 22	+ 10	+ 1	− 2
22 51	+ 20	+ 7	− 1	+ 2	− 8	+ 1	− 9	+ 13	0	+ 40	+ 17	− 3	+ 7
23 51	+ 21	+ 20	+ 4	+ 14	0	+ 17	+ 13	+ 20	− 2	+ 39	+ 24	0	+ 14
0 51	+ 12	+ 15	+ 3	+ 28	+ 14	+ 28	+ 22	+ 30	+ 9	+ 41	+ 17	+ 2	+ 18
1 51	− 3	+ 7	− 8	+ 36	+ 17	+ 36	+ 38	+ 54	+ 15	+ 40	+ 5	− 6	+ 19
2 51	− 15	− 2	− 15	+ 30	+ 29	+ 41	+ 3	+ 56	+ 21	+ 31	+ 1	− 20	+ 16
3 51	− 32	− 22	− 29	+ 26	+ 24	+ 43	+ 4	+ 64	+ 25	+ 12	− 1	− 33	+ 10
4 51	− 47	− 51	− 28	+ 22	+ 40	+ 71	+ 71	+ 77	+ 39	+ 2	− 14	− 48	+ 11
Range ..	208	279	326	412	439	587	488	588	513	260	126	182	309

TABLE Vf.—*Showing for the quiet days selected by the International Commission of Terrestrial Magnetism, the mean diurnal inequaliy of. Declination for the summer months (April to September), winter months (October to March) and the whole year for each of the years 1916 to 1920.*

Unity = 0·01 minute of arc.

— Bombay Civil Time.	1916. April to September.	1916. October to March.	1916. Year.	1917. April to September.	1917. October to March.	1917. Year.	1918. April to September.	1918. October to March.	1918. Year.	1919. April to September.	1919. October to March.	1919. Year.	1920. April to September.	1920. October to March.	1920. Year.
H. m.															
4 51	+ 42	− 21	+ 11	+ 38	− 15	+ 12	+ 41	− 29	+ 6	+ 50	− 34	+ 8	+ 56	22	+ 17
5 51	+140	− 27	+ 57	+118	− 18	+ 50	+112	− 28	+ 42	+120	− 44	+ 38	+133	20	+ 56
6 51	+247	− 19	+114	+245	− 1	+122	+231	− 10	+111	+222	− 26	+ 98	+225	− 1	+112
7 51	+270	+ 43	+157	+265	+ 53	+159	+265	+ 44	+154	+248	+ 52	+150	+245	+ 56	+151
8 51	+184	+ 91	+137	+186	+104	+145	+182	+ 80	+131	+183	+108	+146	+142	+ 97	+129
9 51	+ 24	+ 71	+ 47	+ 63	+ 80	+ 72	+ 43	+ 68	+ 56	+ 49	+ 87	+ 68	− 3	+ 61	+ 29
10 51	−139	− 1	− 75	− 83	0	− 42	−105	+ 3	− 51	− 92	+ 1	− 42	−151	− 10	− 81
11 51	−269	− 77	−173	−207	− 66	−137	−203	− 57	−130	−193	− 57	−125	−250	− 66	−158
12 51	−291	− 82	−186	−243	− 79	−161	−230	− 52	−141	−221	− 57	−139	−248	− 61	−155
13 51	−220	− 52	−136	−202	− 53	−127	−177	− 20	− 98	−175	− 24	−100	−183	− 41	−112
14 51	−121	− 11	− 66	−123	− 33	− 78	− 92	+ 22	− 35	−104	+ 4	− 50	− 93	− 22	− 57
15 51	− 18	+ 17	− 1	− 30	− 9	− 19	− 25	+ 35	+ 5	− 35	+ 35	0	− 7	− 6	− 6
16 51	+ 47	+ 17	+ 32	+ 24	− 6	+ 9	+ 9	+ 21	+ 15	+ 3	+ 27	+ 13	+ 36	− 6	+ 15
17 51	+ 40	+ 4	+ 22	+ 23	− 28	− 2	+ 15	− 13	+ 1	+ 10	− 15	− 2	+ 26	− 9	+ 9
18 51	+ 1	+ 8	+ 5	− 22	+ 1	− 11	− 12	0	− 6	− 23	− 7	− 15	− 19	+ 5	− 7
19 51	− 13	+ 7	− 3	− 39	+ 10	− 15	− 35	+ 5	− 15	− 44	− 2	− 23	− 30	+ 9	− 11
20 51	− 15	+ 6	− 4	− 35	+ 4	− 15	− 32	− 3	− 18	− 42	− 3	− 23	− 24	+ 4	− 10
21 51	− 7	+ 4	− 1	− 20	− 2	− 11	− 24	− 13	− 19	− 30	− 6	− 18	− 12	+ 8	− 2
22 51	+ 2	+ 10	+ 6	− 8	+ 5	− 1	− 15	− 9	− 12	− 11	− 3	− 7	0	+ 13	+ 7
23 51	+ 11	+ 13	+ 12	+ 3	+ 16	− 10	− 5	− 1	− 3	+ 3	+ 3	+ 3	+ 10	+ 18	+ 14
0 51	+ 16	+ 14	+ 15	+ 15	+ 17	+ 16	+ 6	− 1	+ 2	+ 16	+ 3	+ 9	+ 22	+ 15	+ 18
1 51	+ 22	+ 6	+ 14	+ 16	+ 16	+ 16	+ 14	− 7	+ 4	+ 25	− 4	+ 11	+ 33	+ 6	+ 19
2 51	+ 22	− 3	+ 10	+ 13	+ 7	+ 10	+ 19	− 9	+ 5	+ 25	− 15	+ 7	+ 36	− 3	+ 16
3 51	+ 24	− 14	+ 5	+ 8	− 7	0	+ 24	− 23	0	+ 27	− 24	+ 1	+ 38	− 17	+ 10
4 51	+ 39	− 24	+ 7	+ 23	− 25	− 1	+ 37	− 34	+ 2	+ 31	− 37	− 3	+ 53	− 32	+ 11
Range ..	561	173	343	508	183	320	495	137	295	469	161	289	495	163	369

TABLE VI*a*.—*Showing for the quiet days selected by the International Commission of Terrestrial Magnetism, the mean diurnal inequality of Vertical Force for each month of the year and for the whole year 1916.*

Unity = 0·1γ = 0·000001 C.G.S.

1916. Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
4 51	+ 34	− 12	+ 25	+ 49	+ 69	+ 76	+ 79	+ 80	+ 41	+ 29	− 1	− 7	+ 39
5 51	+ 43	− 9	+ 33	+ 89	+134	+151	+158	+135	+120	+ 45	− 2	− 3	+ 75
6 51	+ 90	− 6	+ 57	+140	+ 97	+125	+130	+125	+128	+100	+ 6	+ 6	+ 83
7 51	+145	+ 31	+ 72	+ 83	+ 7	+61	+ 49	+ 24	− 31	+ 68	+ 20	+ 81	+ 51
8 51	+ 84	+ 34	+ 36	− 10	−113	− 56	− 95	−121	−248	− 22	+ 15	+58	− 37
9 51	− 99	+ 5	− 41	−155	−195	−182	−216	−230	−346	−106	− 9	− 12	−132
10 51	−214	− 67	−113	−290	−182	−238	−256	−266	−337	−161	− 40	− 65	−186
11 51	−183	− 99	−137	−293	−194	−226	−234	−238	−266	−141	− 20	− 38	−172
12 51	−123	− 56	− 85	−161	−118	−121	−137	−146	−116	− 56	+ 8	− 13	− 94
13 51	− 66	− 52	− 6	− 46	− 21	− 10	− 71	− 33	+ 29	+ 12	− 9	− 10	− 24
14 51	+ 16	− 44	+ 51	+ 29	+ 54	+ 38	+ 8	+ 61	+116	+ 49	− 17	− 51	+ 26
15 51	+ 34	− 9	+ 65	+ 49	+ 78	+ 72	+ 65	+113	+112	+ 30	− 15	− 65	+ 44
16 51	+ 7	− 12	+ 23	+ 22	+ 59	+ 59	+ 76	+ 97	+ 47	− 21	− 19	− 19	+ 27
17 51	+ 7	− 13	− 33	− 7	+ 26	+ 34	+ 45	+ 33	0	− 31	+ 7	+ 14	+ 7
18 51	+ 30	+ 7	− 24	+ 3	− 20	− 3	+ 3	− 1	+ 25	− 9	+ 11	+ 23	+ 4
19 51	+ 24	+ 9	− 11	+ 15	+ 7	+ 11	+ 1	+ 14	+ 44	− 10	− 2	+ 11	+ 9
20 51	+ 27	+ 9	− 13	+ 31	+ 26	+ 23	+ 18	+ 19	+ 53	− 4	− 5	+ 12	+ 16
21 51	+ 31	+ 29	− 2	+ 42	+ 42	+ 29	+ 45	+ 34	+ 63	+ 14	+ 13	+ 30	+ 31
22 51	+ 31	+ 36	+ 14	+ 67	+ 49	+ 34	+ 56	+ 40	+ 77	+ 36	+ 23	+ 31	+ 41
23 51	+ 27	+ 41	+ 20	+ 71	+ 40	+·36	+ 54	+ 50	+ 83	+ 39	+ 23	+ 23	+ 42
0 51	+ 21	+ 42	+ 13	+ 78	+ 35	+ 36	+ 53	+ 50	+ 86	+ 33	+ 22	+22	+ 41
1 51	+ 15	+ 40	+ 15	+ 68	+ 42	+ 24	+ 49	+ 53	+ 97	+ 35	+ 1	+13	+ 38
2 51	+ 17	+ 33	+ 14	+ 60	+ 41	+ 20	+ 53	+ 61	+ 92	+ 33	0	− 50	+ 31
3 51	+ 21	+ 30	+ 20	+ 60	+ 42	+ 24	+ 63	+ 58	+ 91	+ 28	− 14	+ 4	+ 36
4 51	+ 19	+ 34	+ 26	+ 66	+ 55	+ 40	+ 80	+ 79	+100	+ 32	+ 3	0	+ 45
Range ..	359	141	209	433	329	389	414	401	474	261	63	146	269

TABLE VI*b*.—*Showing for the quiet days selected by the International Commission of the Terrestrial Magnetism, the mean diurnal inequality of Vertical Force for each month of the year and for the whole year 1917.*

Unity = 0·1γ = 0·000001 C.G.S

1917. Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
4 51	+ 49	+ 15	+ 63	+ 39	+ 70	+112	+ 78	+115	+ 86	+ 67	− 3	+ 24	+ 60
5 51	+ 62	+ 17	+ 78	+ 99	+119	+184	+152	+184	+162	+ 94	+ 6	+ 22	+ 98
6 51	+ 90	+ 40	+104	+ 94	+107	+160	+119	+191	+185	+122	+ 12	+ 6	+103
7 51	+115	+ 91	+ 66	+ 8	+ 23	+ 93	+ 13	+ 79	+ 68	+ 42	+ 47	+ 55	+ 58
8 51	+ 23	+ 64	− 14	− 84	− 72	+ 16	− 86	− 60	−108	− 61	− 14	+ 74	− 27
9 51	−150	− 24	−110	−145	−143	− 86	−170	−145	−224	−146	− 65	+ 55	−113
10 51	−229	−126	−139	−207	−185	−172	−205	−216	−301	−195	−117	+ 26	−172
11 51	−197	−134	−137	−226	−149	−214	−177	−222	−279	−145	− 35	+ 7	−159
12 51	−133	−108	− 57	−144	− 52	−186	−100	−180	−127	− 94	+ 21	− 3	− 97
13 51	− 52	− 52	+ 26	− 28	+ 15	−108	− 55	−118	− 5	− 37	− 8	− 11	− 36
14 51	+ 17	− 12	+ 44	+ 38	+ 34	− 34	+ 59	− 25	+ 50	− 4	−29	− 46	+ 8
15 51	+ 35	+ 7	+ 10	+ 55	+ 57	+ 4	+ 82	+ 62	+ 63	− 11	− 35	− 35	+ 25
16 51	+ 13	+ 13	− 38	+ 31	+ 15	+ 9	+ 44	+ 69	+ 20	− 54	− 34	− 46	+ 3
17 51	+ 20	+ 2	− 42	+ 4	− 23	+ 6	+ 9	+ 28	− 21	− 36	− 2	− 49	− 9
18 51	+ 54	+ 27	+ 1	− 8	− 45	−22	− 43	− 32	− 2	+ 34	+ 30	− 4	− 1
19 51	+ 37	+ 21	+ 6	+ 18	− 14	− 8	− 5	− 11	+ 5	+ 18	+ 18	− 9	+ 6
20 51	+ 22	+ 10	0	+ 27	+ 5	+ 15	+ 8	+ 7	+ 18	+ 7	+ 8	− 17	+ 9
21 51	+ 42	+ 11	0	+ 55	+ 15	+ 30	+ 35	+ 27	+ 33	+ 36	+ 9	− 17	+ 23
22 51	+ 49	+ 21	+ 26	+ 60	+ 32	+ 38	+ 40	+ 36	+ 61	+ 70	+ 36	+ 8	+ 39
23 51	+ 37	+ 26	+ 37	+ 58	+ 31	+ 40	+ 44	+ 48	+ 71	+ 70	+ 33	+ 11	+ 42
0 51	+ 37	+ 26	+ 32	+ 69	+ 45	+ 42	+ 41	+ 49	+ 68	+ 67	+ 29	− 1	+ 42
1 51	+ 28	+ 22	+ 28	+ 62	+ 37	+ 42	+ 41	+ 47	+ 60	+ 65	+ 27	− 7	+ 38
2 51	+ 25	+ 19	+ 22	+ 48	+ 38	+ 38	+ 40	+ 44	+ 60	+ 46	+ 31	− 5	+ 34
3 51	+ 21	+ 17	+ 18	+ 63	+ 39	+ 33	+ 44	+ 50	+ 65	+ 46	+ 27	− 11	+ 34
4 51	+ 23	+ 15	+ 25	+ 75	+ 53	+ 48	+ 72	+ 65	+ 83	+ 60	+ 34	− 12	+ 45
Range ..	344	225	243	325	304	398	357	411	486	317	164	123	275

TABLE VIc.—*Showing for the quiet days selected by the International Commission of Terrestrial Magnetism, the mean diurnal inequality of Vertical Force for each month of the year, and for the whole year 1918.*

Unity = 0·1γ = 0·000001 C.G.S.

1918. Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
4 51	− 19	+ 41	− 25	+ 65	+ 98	+ 83	+ 61	+ 98	+ 24	+ 67	+ 66	+ 7	+ 47
5 51	− 25	+ 46	+ 17	+113	**+146**	+151	+129	**+159**	+ 89	+101	+ 63	+ 20	+ 84
6 51	− 31	+ 35	+ 40	**+151**	+121	**+162**	**+143**	+147	**+123**	**+139**	+ 72	+ 22	+ **94**
7 51	+ 27	+ **68**	+ 11	+ 31	+ 39	+ 98	+ 80	+ 21	− 2	+ 65	**+110**	+ **62**	+ 51
8 50	+ 98	+ 26	− 60	− 91	− 98	+ 7	− 27	−101	−168	− 71	+ 73	+ 47	− 30
9 50	**+125**	− 44	− 80	−192	−207	− 99	−101	−184	−291	−211	− 18	− 63	−114
10 50	+ 81	− **74**	−140	**−245**	**−214**	**−213**	−122	**−231**	**−306**	**−280**	− **68**	− **78**	**−157**
11 50	− 34	− 65	**−142**	−202	−163	−198	−135	−182	−237	−206	− 21	− 31	−135
12 50	− 5	− 18	− 77	− 78	− 68	−155	**−139**	−109	− 17	− 98	+ 48	+ 14	− 59
13 50	− 13	+ 16	+ 13	+ 15	+ 37	− 89	− 80	− 60	− 24	− 3	+ 66	+ 24	− 8
14 50	− 76	+ 13	+ 49	+ 46	+ 62	− 50	− 31	− 21	+ 30	+ 57	+ 34	+ 49	+ 14
15 50	− 90	+ 5	+ 32	+ 54	+ 89	− 6	− 3	+ 27	+ 40	+ 43	+ 11	+ 40	+ 20
16 50	− 61	− 26	− 5	+ 33	−138	+ 6	+ 7	+ 30	+ 16	− 8	− 48	− 9	− 17
17 50	− 33	− 52	− 22	− 12	− 2	+ 14	+ 6	+ 17	+ 12	− 25	− 55	− 3	− 13
18 50	− 5	− 5	+ 7	− 24	− 20	− 29	− 29	− 4	+ 26	+ 17	− 27	+ 1	− 8
19 50	− 5	− 7	+ 23	+ 1	− 3	− 13	− 28	+ 2	+ 24	+ 17	− 30	+ 5	− 1
20 50	− 11	− 11	+ 18	+ 20	+ 25	+ 14	− 7	+ 9	+ 36	+ 6	− 44	− 13	+ 3
21 50	− 6	− 7	+ 29	+ 40	+ 36	+ 30	+ 12	+ 37	+ 50	+ 33	− 26	− 13	+ 18
22 50	+ 6	+ 12	+ 46	+ 54	+ 41	+ 40	+ 25	+ 41	+ 72	+ 54	− 8	− 4	+ 32
23 50	+ 16	+ 16	+ **55**	+ 63	+ 45	+ 47	+ 41	+ 50	+ 87	+ 68	− 15	− 7	+ 39
0 50	+ 15	+ 15	+ 50	+ 69	+ 43	+ 50	+ 44	+ 59	+ 97	+ 65	− 27	− 10	+ 39
1 50	+ 14	+ 18	+ 50	+ 65	+ 46	+ 51	+ 41	+ 68	+ 96	+ 56	− 31	− 19	+ 38
2 50	+ 13	+ 14	+ 37	+ 62	+ 45	+ 52	+ 48	+ 67	+ 88	+ 58	− 31	− 17	+ 36
3 50	+ 8	+ 7	+ 39	+ 56	+ 55	+ 60	+ 55	+ 67	+ 88	+ 54	− 44	− 17	+ 36
4 50	+ 3	+ 13	+ 45	+ 69	+ 79	+ 75	+ 79	+ 72	+ 95	+ 70	− 44	− 5	+ 46
Range ..	215	142	197	396	360	375	282	390	429	419	178	140	251

TABLE VId.—*Showing for the quiet days selected by the International Commission of Terrestrial Magnetism, the mean diurnal inequality of Vertical Force for each month of the year, and for the whole year 1919.*

Unity = 0·1γ = 0·000001 C.G.S.

1919. Bombay Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
4 50	+ 25	+ 14	+ 41	+ 68	+ 27	+ 78	+ 89	+ 64	+ 52	+ 52	+ 18	+ 7	+ 45
5 50	+ 36	+ 21	+ 48	+ 96	+ 91	+157	**+145**	+111	+ 98	+ 73	+ 19	+ 12	+ 76
6 50	+ **59**	+ 46	+ 79	**+123**	+ 77	**+163**	+129	**+116**	**+130**	**+118**	+ 40	+ 14	+ **91**
7 50	+ 14	+ **90**	+ **84**	+ 65	− 12	+ 66	+ 73	+ 1	+ 39	+ 75	+ **57**	+ 76	+ 52
8 50	+ 46	+ 18	+ 57	− 31	−114	− 58	− 34	−107	−105	− 10	+ 34	+ **94**	− 17
9 50	−100	−133	− 3	−119	−248	−151	−116	−190	−183	−113	− 5	+ 55	−109
10 50	**−174**	**−215**	− 37	−153	**−275**	**−171**	**−136**	**−213**	**−233**	**−135**	− 68	+ 16	**−149**
11 50	−142	−148	− **91**	**−157**	−223	−117	− 95	−189	−224	**−103**	− **73**	− 36	−133
12 50	− 89	− 42	− 78	−101	−135	− 81	− 72	−100	−137	− 35	− 11	− 19	− 76
13 50	− 47	+ 11	− 9	− 11	− 13	− 56	− 48	− 39	− 47	+ 18	− 28	− 8	− 23
14 50	− 21	+ 53	+ 30	+ 57	+ 43	− 42	− 24	+ 31	+ 27	+ 48	− 39	+ 6	+ 14
15 50	+ 15	+ 31	+ 13	+ 59	+ 43	+ 2	+ 14	+ 86	+ 57	+ 20	− 26	+ 28	+ 29
16 50	+ 2	− 14	− 44	+ 9	+ 21	+ 18	+ 30	+ 83	+ 26	− 50	− 33	+ 19	+ 6
17 50	+ 14	− 47	− 64	− 25	+ 23	+ 26	+ 9	+ 29	+ 2	− 62	− 26	+ 3	− 10
18 50	+ 34	− 2	− 19	− 22	0	− 16	− 50	− 9	+ 3	− 14	+ 16	+ 7	− 6
19 50	+ 31	+ 12	− 6	− 3	+ 22	− 19	− 34	− 6	+ 15	− 13	+ 7	− 4	0
20 50	+ 21	0	− 12	− 1	+ 47	− 1	− 10	+ 14	+ 26	− 5	+ 6	− 14	+ 6
21 50	+ 26	+ 25	− 9	+ 19	+ 71	+ 16	+ 10	+ 30	+ 45	+ 20	+ 16	− 15	+ 21
22 50	+ 32	+ 43	+ 6	+ 26	+ 81	+ 34	+ 19	+ 50	+ 60	+ 33	+ 26	− 19	+ 33
23 50	+ 28	+ 43	+ 12	+ 35	+ 85	+ 39	+ 28	+ 54	+ 73	+ 27	+ 30	− 25	+ 36
0 50	+ 27	+ 44	+ 17	+ 39	+ 91	+ 34	+ 23	+ 53	+ 69	+ 27	+ 21	− 30	+ 35
1 50	+ 25	+ 48	+ 9	+ 33	+ 88	+ 34	+ 27	+ 56	+ 66	+ 20	+ 11	− 39	+ 31
2 50	+ 15	+ 43	+ 3	+ 15	+ 82	+ 23	+ 24	+ 41	+ 61	+ 14	+ 4	− 45	+ 23
3 50	+ 23	+ 52	− 5	+ 15	+ 89	+ 29	+ 27	+ 43	+ 64	+ 9	+ 4	− 50	+ 25
4 50	+ 31	+ 49	− 4	+ 11	+108	+ 43	+ 41	+ 64	+ 73	+ 16	+ 1	− 47	+ 32
Range ..	233	305	175	280	383	334	281	329	363	253	130	144	240

TABLE VIe.—*Showing for the quiet days selected by the International Commission of Terrestrial Magnetism, the mean diurnal inequality of Vertical Force for each month of the year, and for the whole year 1920.*

Unity = 0·1γ = 0·000001 C.G.S.

1920. Bombay Civil Time.	Month. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
H. m.													
4 51	+ 11	− 11	+ 32	+ 52	+ 40	+ 49	+ 7	+ 30	+ 70	+ 4	− 13	+ 11	+ 23
5 51	+ 21	− 12	+ 54	+ 92	+ 87	+110	+ 61	+ 94	+116	+ 34	+ 7	+ 30	+ 57
6 51	+ 23	+ 2	+ 94	+115	+ 42	+ 89	+ 55	+ 54	+139	+ 57	+ 13	+ 45	+ 60
7 51	+ 86	+ 73	+ 47	+ 25	− 14	+ 1	+ 26	− 82	+ 3	+ 22	+ 4	+ 61	+ 21
8 51	+ 97	+ 70	− 80	− 78	−132	−154	− 81	−233	−143	− 49	− 39	+ 13	− 67
9 51	+ 26	+ 8	−192	−159	−215	−267	−211	−290	−262	−124	−106	− 84	−157
10 51	− 76	− 70	−251	−195	−194	−288	−215	−266	−253	−141	−121	−115	−182
11 51	− 91	− 86	−205	−178	−163	−212	−115	−209	−175	−130	− 66	− 45	−139
12 51	− 74	− 77	−107	− 90	− 86	− 98	− 57	−111	− 57	− 87	+ 2	+ 13	− 69
13 51	− 61	−122	− 29	+ 1	− 10	− 30	+ 4	− 2	+ 37	+ 5	+ 9	+ 37	− 13
14 51	− 38	−119	+ 19	+ 44	+ 43	+ 43	+ 71	+ 85	+ 85	+ 42	+ 2	+ 60	+ 28
15 51	+ 2	− 62	+ 32	+ 58	+ 67	+ 69	+ 92	+122	+ 91	+ 31	+ 10	+ 46	+ 47
16 51	+ 8	− 6	+ 9	+ 35	+ 33	+ 85	+ 57	+ 97	+ 43	− 12	+ 2	+ 2	+ 29
17 51	+ 8	+ 15	+ 29	+ 5	0	+ 54	+ 11	+ 36	− 7	− 6	+ 17	+ 8	+ 15
18 51	+ 20	+ 33	+ 34	− 7	− 13	+ 20	− 21	+ 16	− 11	+ 1	+ 36	+ 9	+ 9
19 51	+ 23	+ 31	+ 45	+ 6	+ 12	+ 35	− 7	+ 40	+ 9	+ 9	+ 32	+ 2	+ 20
20 51	+ 13	+ 33	+ 48	+ 12	+ 30	+ 48	+ 17	+ 52	+ 17	+ 17	+ 27	− 8	+ 25
21 51	+ 14	+ 36	+ 57	+ 30	+ 54	+ 58	+ 28	+ 65	+ 27	+ 30	+ 31	− 6	+ 35
22 51	+ 12	+ 51	+ 63	+ 39	+ 67	+ 59	+ 40	+ 77	+ 35	+ 36	+ 33	− 2	+ 43
23 51	+ 11	+ 52	+ 67	+ 46	+ 67	+ 62	+ 42	+ 76	+ 46	+ 42	+ 25	− 9	+ 43
0 51	+ 6	+ 54	+ 56	+ 42	+ 65	+ 63	+ 46	+ 80	+ 44	+ 46	+ 21	− 8	+ 43
1 51	− 6	+ 46	+ 56	+ 37	+ 65	+ 63	+ 46	+ 78	+ 45	+ 48	+ 18	− 10	+ 40
2 51	− 6	+ 31	+ 57	+ 36	+ 67	+ 58	+ 39	+ 75	+ 48	+ 45	+ 15	− 16	+ 37
3 51	− 15	+ 29	+ 51	+ 33	+ 63	+ 58	+ 42	+ 78	+ 55	+ 46	+ 25	− 14	+ 37
4 51	− 15	+ 16	+ 67	+ 43	+ 81	+ 86	+ 70	+ 89	+ 67	+ 53	+ 26	− 13	+ 47
Range ..	188	195	345	310	302	398	307	412	401	198	157	176	242

TABLE VIf.—*Showing for the quiet days selected by the International Commission of Terrestrial Magnetism, the mean diurnal inequality of Vertical Force for the summer months (April to September), winter months (October to March) and for the whole year for each of the years 1916 to 1920.*

Unity = 0·1γ = 0·000001 C.G.S.

Bombay Civil Time.	1916. April to September.	1916. October to March.	1916. Year.	1917. April to September.	1917. October to March.	1917. Year.	1918. April to September.	1918. October to March.	1918. Year.	1919. April to September.	1919. October to March.	1919. Year.	1920. April to September.	1920. October to March.	1920. Year.
H. m.															
4 51	+ 66	+ 11	+ 39	+ 83	+ 36	+ 60	+ 71	+ 23	+ 47	+ 63	+ 26	+ 45	+ 41	+ 6	+ 23
5 51	+131	+ 18	+ 75	+150	+ 47	+ 98	+131	+ 37	+ 84	+116	+ 35	+ 76	+ 93	+ 22	+ 57
6 51	+124	+ 42	+ 83	+143	+ 62	+103	+141	+ 46	+ 94	+123	+ 59	+ 91	+ 82	+ 39	+ 60
7 51	+ 32	+ 69	+ 51	+ 47	+ 69	+ 58	+ 45	+ 57	+ 51	+ 39	+ 66	+ 52	− 7	+ 49	+ 21
8 51	−107	+ 34	− 37	− 66	+ 12	− 27	− 80	+119	− 30	− 75	+ 40	− 17	−137	+ 2	− 67
9 51	−221	− 44	−132	−152	− 73	−113	−179	− 49	−114	−168	− 50	−109	−234	− 79	−157
10 51	−262	−110	−186	−214	−130	−172	−222	− 93	−157	−197	−102	−149	−235	−129	−182
11 51	−242	−103	−172	−211	−107	−159	−186	− 83	−135	−168	− 99	−133	−175	−104	−139
12 51	−133	− 54	− 94	−131	− 62	− 97	− 94	− 23	− 59	−104	− 46	− 75	− 83	− 55	− 69
13 51	− 25	− 22	− 24	− 50	− 22	− 36	− 33	+ 17	− 8	− 36	− 11	− 23	0	− 27	− 13
14 51	+ 51	+ 1	+ 26	+ 20	− 5	+ 8	+ 7	+ 21	+ 14	+ 15	+ 13	+ 14	+ 62	− 6	+ 28
15 51	+ 82	+ 7	+ 44	+ 54	− 5	+ 25	+ 33	+ 7	+ 20	+ 43	+ 13	+ 29	+ 83	+ 10	+ 47
16 51	+ 60	− 7	+ 27	+ 31	− 24	+ 3	− 8	− 26	− 17	+ 31	− 20	+ 6	+ 58	+ 1	+ 29
17 51	+ 22	− 8	+ 7	+ 1	− 18	− 9	+ 6	− 32	− 13	+ 11	− 30	− 10	+ 17	+ 12	+ 15
18 51	+ 1	+ 6	+ 4	− 25	+ 24	− 1	− 13	− 2	− 8	− 16	+ 4	− 6	− 3	+ 22	+ 9
19 51	+ 15	+ 3	+ 9	− 3	+ 15	+ 6	− 3	+ 1	− 1	− 4	+ 5	0	+ 16	+ 24	+ 20
20 51	+ 28	+ 4	+ 16	+ 13	+ 5	+ 9	+ 16	− 9	+ 3	+ 12	− 1	+ 6	+ 29	+ 22	+ 25
21 51	+ 43	+ 19	+ 31	+ 33	+ 13	+ 23	+ 34	+ 2	+ 18	+ 32	+ 10	+ 21	+ 44	+ 27	+ 35
22 51	+ 54	+ 29	+ 41	+ 45	+ 34	+ 39	+ 46	+ 18	+ 32	+ 45	+ 20	+ 33	+ 53	+ 32	+ 43
23 51	+ 56	+ 29	+ 42	+ 49	+ 36	+ 42	+ 55	+ 22	+ 39	+ 52	+ 19	+ 36	+ 56	+ 31	+ 43
0 51	+ 56	+ 26	+ 41	+ 52	+ 32	+ 42	+ 60	+ 18	+ 39	+ 51	+ 18	+ 35	+ 57	+ 29	+ 43
1 51	+ 55	+ 20	+ 38	+ 48	+ 27	+ 38	+ 61	+ 15	+ 38	+ 51	+ 12	+ 31	+ 56	+ 25	+ 40
2 51	+ 55	+ 8	+ 31	+ 45	+ 23	+ 34	+ 60	+ 12	+ 36	+ 41	+ 6	+ 23	+ 54	+ 21	+ 37
3 51	+ 56	+ 15	+ 36	+ 49	+ 20	+ 34	+ 63	+ 8	+ 36	+ 45	+ 5	+ 25	+ 55	+ 20	+ 37
4 51	+ 70	+ 19	+ 45	+ 66	+ 24	+ 45	+ 78	+ 14	+ 46	+ 57	+ 8	+ 32	+ 73	+ 22	+ 47
Range ..	393	179	269	364	199	275	363	212	251	320	168	240	328	178	242

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